FOR THE UPPER GRADES

BOOK TWO

READING AND LIVING

HILL · AND · LYMAN

(Miss) E. H. Hutchison.

READING AND LIVING

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From a painting by Stanley Everett

THE CHEERS WHICH AROSE IN THE DESERT WERE ECHOED FROM COAST TO COAST.

[*See p.* 296]

READING AND LIVING

FOR UPPER GRADES

BOOK TWO

BY

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PREFACE

Reading and Living, consisting of basal readers for the upper grades, *Books One* and *Two*, continues the instruction begun in the three middle-grade readers of the same title. The series as an integrated whole embodies modern practices in teaching reading and literature.

Successful Living Is Interpreted through Literature

As boys and girls, men and women, we all play together and work together. Our success and happiness depend largely upon our ability to associate pleasantly with our friends, neighbors, and co-workers.

With such human relationships great writers have always been fascinated. Their stories, poems, essays, novels, and dramas usually deal with people living and working together. Literature is, for the most part, a portrayal of human life in its varying aspects. It helps us to understand and appreciate one another. In short, literature *is* life.

Reading Is Grouped in Units of Social Values

Reading and Living develops the values of literature by organizing materials for *unit instruction*. Grouping selections merely in accordance with their factual content, as for example under such titles as Dog Stories, Animal Literature, and Tales of Fancy, is abandoned. Instead, units of thought based upon the fundamental meanings of selections, upon their interpretations of life, as intended by the writers themselves, are used as the principles or themes upon which to center and organize reading materials.

For the middle grades, this series correlates reading experiences with major themes like *Adventure*, *Stability*, *Helpfulness*, *Happiness*, *Security*, *Heroism*, and *Duty*. For the upper grades, *Book One* consists of units which represent important

factors in community welfare: *Making Homes, Going to School, Finding Enjoyment, Providing Safety, Seeking New Homes,* and *Making the Best of One's Self; Book Two* presents units which portray the chief aspects of vocational life: *Conquering Nature, Making and Building, Buying and Selling, Communicating and Travelling, Saving and Conserving, Finding and Doing One's Work.* Thus the series definitely correlates literature and community life.

Reading Selections Are of High Literary Character

The various units are developed by means of carefully selected children's literature of a high order. Without being unduly emphasized, the principles and ideals of right living are presented through selections attractive to children in content and style, and through a rich variety of pupil activities centering about the foregoing themes. Literary materials and pupil experiences are thus intimately associated with training in ideals, character, and citizenship, here conceived to be the primary function of literature in the curriculum of the upper elementary grades.

Training in Reading Habits Is Provided

Reading and Living for the upper grades continues on a higher level the systematic training in reading habits begun in the middle-grade books. Adequacy of recognition and rate of reading, adequacy of comprehension and interpretation, adequacy of appreciation and application, each interpreted as being made up of certain special pupil abilities, are systematically provided for in the upper-grade books. Training in reading habits is a principal goal. Thus, pupil experiences are intimately associated with reading materials that are intrinsically valuable.

An Extensive Reading Program Is Included

Reading and Living helps schools transform the "recitation" by the introduction of abundant supplementary reading

experiences by individual pupils. For this purpose the series employs first a *Class Library* of ten books which are found in almost every school library; second, *Read-a-Book* lists, which are recognized as suitable materials for pupils of the upper grades; third, numerous *Additional Readings*, placed appropriately throughout the volumes. Of course, it is not necessary that such materials be available, but schools desiring to promote library reading are here provided with an economical and effective procedure.

Pupil Activities Are Emphasized

Reading and Living not only furnishes a rich volume of reading materials and offers unusual provisions for wide individual reading, but also conforms to modern educational practice by suggesting a rich variety of natural expressional situations. Both oral and written expression are correlated with reading experiences. In this respect the series approximates closely a program of *general English*, as contrasted with the fragmentary nature of separate English disciplines. The volumes comprise a laboratory series in *general* English comparable to a series of general science or general mathematics.

The Series Is the Outgrowth of Classroom Experience

Reading and Living is the outgrowth of years of experience in the upper grades. The books are offered as basal reading texts in the belief that they provide a modern program for upper-grade instruction in the techniques of reading, and at the same time introduce boys and girls to the fascinating world of books. They offer *correlation* with life problems, *socialization* through co-operative projects, *individualization* by challenges for pupils of various ability levels, and *library reading* in abundance. The series also makes a major contribution to the attainment of the goal of all true education —good citizenship.

TO THE TEACHER

These books are designed to furnish instruction in line with modern progressive thought concerning the teaching of reading and literature. Of this newer thought, the outstanding features are given below, with suggestions as to how the materials in *Reading and Living* may be used so as to provide instruction in accordance with this thought.

I. The chief value of literature lies in its content and message.

1. With your class, turn to the Table of Contents, on page 10, and talk over the titles of the six units and the main subdivisions under each. Notice that each section has a definite relation to the unit. In this way pupils will get an idea of the book as a whole, made up of related parts, rather than of scattered and unrelated stories or selections.

2. Turn with the class to the beginning of the first unit, "Conquering Nature." Examine the picture and Foreword and read together the Introduction, on page 26. This will put the class in touch with the keynote of the unit. Look over the Contents, on page 27, pointing out in more detail the unity within "Conquering Nature."

II. From the very beginning, reading should be taught as a process of thinking; this emphasis is particularly needed in the middle and upper grades.

1. Before the selection on page 93, you will find a problem for the children to work out as they read. Call attention to the fact that they are to *think* while they are reading. This type of exercise is repeated frequently throughout the book; see, for example, pages 124, 135, 152.

2. The chief opportunities to stress the thinking process will be found in the Class Activities. For example, on page

40, No. 1 requires the pupils to think about the major idea of the selection rather than to remember details in the story. Typical thought-provoking questions, of which there are scores of similar examples, are found on page 40, No. 4; page 53, No. 4; page 63, No. 4.

3. Utilize the abundant occasions for the pupils to pass judgment upon elements of literary excellence; as, for example, the turning point or climax, page 53, No. 6; or the choice of material for a literary purpose, page 85, Nos. 3 and 4; or the beauty and appropriateness of figures of speech, page 133, No. 10; or poetic effects in the use of words, page 164, No. 3; or figures of speech that contribute to the development of literary tastes, page 219, No. 4.

III. **Silent reading needs chief emphasis; whenever oral reading is introduced, it should be looked upon as interpretative reading.**

1. With the pupils, read the matter in small type before "Pioneers, O Pioneers," page 53. Then have the pupils read the selection silently with the problem in mind. After the silent reading and before any class discussion, have the pupils work out the Class Activities, pages 54, 55. This procedure should be followed throughout the book with such variations as may seem appropriate for your class.

2. Whenever it seems desirable use oral reading, especially with poetry, usually after silent reading and study, so that the meaning may be clearly understood. In general, teach upper-grade pupils to look upon oral reading as *interpretative* of thought and feeling, as on pages 55, No. 10; 118, No. 5.

IV. **In all types of reading experiences there are certain fundamental skills, training in which is the special function of reading instruction in the upper grades. Moreover, the major reading experiences of upper-grade pupils fall naturally into three general groups, each of which calls for an individual and fairly distinct reading method, involving a special combination of the fundamental skills.**

Supplement the frequent drill situations of *Book One* covering the five fundamental skills (see "To the Teacher," page 12) with the additional drill exercises which abound in *Book Two*.

1. Varying the rate of silent reading in accordance with the reader's purpose and with the nature of the selections; see pages 64; 68, Nos. 1, 3, 4; page 110.
2. Looking for the author's central idea and the leading divisions of his thought; see pages 40, 93, 124, 153.
3. Making mental reviews, or taking backward summarizing looks, during the reading; see pages 85, 126, 160.
4. Making active contributions to the reading; reading between the lines. See pages 53, 257.
5. Finding special information or locating particular passages; see pages 64; 89, No. 4; 168–169.
6. Making comparisons; passing judgment upon the author's thought; applying information to one's own problems. See pages 61; 63, Nos. 3, 4, and 8; 81; 90, No. 9; 126; 160.

According to the nature of the materials read and the purpose of reading, upper-grade children are at different times called upon to *study*, to read textbooks to master information; to do *supplementary reading*, to read reference books to find additional information upon a class problem; and to do *recreational reading*, to read literature for enjoyment. Naturally, since all three are reading processes, they all employ in varying emphasis the six fundamental *skills* named above. Current thought advocates teaching pupils directly that study reading, supplementary reading, and recreational reading are fairly distinct and different reading problems and that each has an appropriate reading method or technique.

Utilize the instructional material and methods included in *Book Two* to teach the differences between study reading, supplementary reading, and recreational reading for enjoyment.

1. Study: for examples, see pages 59, 85, 93, 153.
2. Supplementary reading: see pages 64; 79, Nos. 1, 2, and 4; 135.
3. Recreational reading: see pages 31, 40, 81, 110, 142, 180, 184, 187, 193.

V. The uniform reading in a textbook should be supplemented by wide and varied reading experiences with materials appropriate to the differing capacities of the pupils and interests.

1. Choose a book. After looking over the contents of "Conquering Nature" (see page 27) have the class examine the book list on pages 28 and 29. Suggest that each pupil secure a book which appeals to him and read it at home while the class is studying Unit I. At an appropriate time, usually at the end of a unit, set a day aside for informal conversation about the books read by the pupils.

2. Class library. On pages 55, 63, 80, and 98 in "Conquering Nature" are given specific references to the books called the Class Library (page 17). Secure as many of these books as you can for use in the classroom. Early in the study of a unit have the class turn to the pages named and either assign the various references or call for volunteers. Have pupils make oral reports at suitable times.

3. Additional reading. On pages 40, 53, and 63 you will find examples of lists called "Additional Readings," consisting of references to reading matter paralleling or contrasting with the selections to which they are attached. When possible, have pupils volunteer to look up such references and report their findings to the class.

VI. Reading, both of the selections in a textbook and of individual projects, should result in full, free, and frequent expression in the form of reports, talks, essays, discussions of an informal or round-table type in the classroom itself and occasionally outside of the classroom in assembly periods and public programs.

1. Solving problems. Throughout *Reading and Living* are numerous problems usually calling for co-operative effort. In the early part of the work, talk over with the class what is required and show them how to meet the requirements; later, throw the responsibility on the pupils themselves. Utilize the problems so as to develop ingenuity and initiative; for examples, see pages 79, No. 4; 80, No. 6; 89, No. 7; 110, 211.

2. Dramatizations and debates. Encourage pupils to volunteer for and in some cases assign or require participation in the dramatizing and debating activities which are frequently suggested; as, for example, on pages 112; 123, No. 7; 172; 183, No. 1.

3. Round-table discussions and conversations. Utilize the

topics for conversation and informal discussion as well as the suggestions for Book Days as given, for example, on pages 52, No. 2; 55, No. 9; 110, No. 2; 171, No. 2.

4. Individual projects. A large variety of compositions, demonstrations, reports, charts, and posters are suggested for individual pupils or committees; for examples, see pages 40, No. 5; 60, No. 6; 89, No. 6; 90, No. 8; 97, No. 5; 98, No. 10; 187, No. 4.

5. Review exercises. At the end of each unit, under the heading "General Review" are suggested three types of review activities as follows: Reading Habits, Questions and Problems, and Rounding Out the Meaning of the Unit. While the class is reading the first unit, examine the exercises suggested under the General Review (page 98) in order to select those which you will wish to use; make assignments in advance so as to give pupils ample time to prepare their work. For the second, third, and fourth units, you may delegate the assignments to class committees. Entrust the final review in the fifth unit to the girls and the sixth to the boys.

CLASS LIBRARY

These books have been selected because of their interest and value as supplementary reading. They are referred to repeatedly by title and page throughout this volume. It is recommended that at least one copy of each book be purchased for class use.

1. Bowman, James Cloyd, *The Promise of Country Life.* D. C. Heath & Co.: Boston, 1916.
2. Davis, Roy, and Getchell, Frederick G., *Stories of the Day's Work.* Ginn and Company: Boston, 1921.
3. Faris, John T., *Makers of Our History.* Ginn and Company: Boston, 1917.
4. Forman, Samuel Eagle, *Stories of Useful Inventions.* Century Company: New York, 1918.
5. Hill, Henry Chase, *The Wonder Book of Knowledge.* John C. Winston Company: Philadelphia, 1919.
6. Jackson, Bennett B.; Deming, Norma H.; and Bemis, Katharine I., *Opportunities of To-day for Boys and Girls.* Century Company: New York, 1921.
7. Laselle, Mary A., *The Joy in Work.* Henry Holt and Company: New York, 1920.
8. Moffett, Cleveland, *Careers of Danger and Daring.* Century Company: New York, 1921.
9. Pressey, Park, *A Vocational Reader.* Rand McNally and Company: Chicago, 1916.
10. One or all of these:

    The Book of Knowledge. 20 vols. Grolier Society: New York, 1912.

    Compton's Pictured Encyclopedia. 10 vols. F. E. Compton and Company: Chicago, 1923.

    The World Book. 8 vols. The World Book: Chicago, 1918.

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UNIT ONE

CONQUERING NATURE

"CONQUERING, HOLDING, DARING, VENTURING AS WE GO THE UNKNOWN WAYS,
PIONEERS! O PIONEERS!" —WHITMAN. [*See p.* 54]

CONQUERING NATURE

When I consider thy heavens, the work of thy fingers,
The moon and the stars, which thou hast ordained;
What must man be, that thou art mindful of him!
And the son of man, that thou visitest him!

For thou hast made him a little lower than the angels,
And hast crowned him with glory and honor.
Thou madest him to have dominion over the works of thy hands;
Thou hast put all things under his feet,
All sheep and oxen, yea, and the beasts of the field;
The fowl of the air, and the fish of the sea,
And whatsoever passeth through the paths of the sea.

— THE BIBLE.

CONQUERING NATURE

Man is the only creature who walks erect, who smiles and laughs, who can speak and write, who has a sense of right and wrong, and who is able to think and plan.

It is probably the possession of these five powers which has made man superior to the beasts, and which has enabled him to conquer nature's forces and materials. His ability to walk erect left his arms and hands free to meet dangers which he could not have overcome if he had been forced to go on all fours like a dog; his smile, his sense of humor, helped him to get along with his companions; his ability to speak and write made it easy for him to work with other people; his sense of right and wrong, causing him to respect the rights of others, promoted good feeling and co-operation; his power to think and plan enabled him to master difficulties and to conquer obstacles far beyond the capacity of the lower animals. Indeed it is hard to see how man could have solved the problems he faced if, like the beasts, he had lacked these five marvelous possessions.

The story of man's progress is largely the story of the use of his unique powers in the conquest of nature. Slowly and patiently he found out the secret of nature's laws, learned how to tame the wild grasses and the wild animals, discovered how to build a shelter from the storm, and learned how to master the winds and to compel even fire and air to do his bidding. The fascinating story of victories like these is told in the following selections.

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CHOOSE A BOOK

(Select the book you think you will like best and read it at home while the class is studying this unit.)

1. Bullen, Frank T., *The Cruise of the Cachalot.* Appleton.
   The story of the adventures of the crew of a New England whaling-vessel on the hunt for "ile" in the old days of sails, hand harpoons, and hand lances.

2. Hugo, Victor, *Toilers of the Sea.* Crowell.
   Man's struggle with nature — the winter, the sea, the hurricane, the octopus — occupy the centre of the stage in this stirring novel, whose scene is laid in the little Isle of Guernsey, just off the coast of France.

3. Knowles, Joseph, *Alone in the Wilderness.* Small.
   The story of a man who, on a wager, goes to live alone for two months in the Maine woods, taking with him neither food, clothing, nor utensils of any kind.

4. Leith, C. K., and Leith, A. T., *A Summer and Winter on Hudson Bay.* Cantwell Printing Co., Madison, Wis.
   The adventures of two men in the wilds of the Hudson Bay country.

5. London, Jack, *The Cruise of the Snark.* Donohue.
   The account of a cruise around the world, in a forty-three-foot boat, by the author, his wife, and three other people.

6. Nansen, Fridtjof, *The First Crossing of Greenland.* Longmans.
   The adventurous journey across Greenland on skis and snow-shoes of the Arctic explorer Nansen and five companions, illustrated with many drawings and pictures. Nansen's *Farthest North* is also a stirring narrative of victories over nature in polar latitudes.

7. Newbolt, Henry, *The Book of the Long Trail.* Longmans.
   This book contains true stories of contests with nature, of struggles against odds and obstacles, of the daring and the heroism of nine great explorers: John Franklin, David Livingstone, Henry M. Stanley, Robert Burke, William J. Wills, Francis Younghusband, Robert F. Scott, and Alexander Wollaston.

8. Reynolds, Minnie J., *How Man Conquered Nature.* Macmillan.
   The author describes the most important steps in the conquest of nature by primitive man.

9. Roosevelt, Theodore, *Episodes from the Winning of the West.* Putnams.

This book is made up of dramatic pages from the conquest of the West by such pioneers of courage as Daniel Boone, John Sevier, and David Robertson.

10. Schultz, James W., *With the Indians in the Rockies.* Houghton.

The adventures of two boys in the Rocky Mountains, as told by a man who knows much about woodcraft and nature.

11. Slocum, Joshua, *Around the World in the Sloop Spray.* Century.

The adventures of Captain Slocum, who sailed alone around the world in a small sloop rebuilt by himself.

12. Slusser, Effie Young; Williams, Mary Belle; and Beeson, Emma Burbank, *Stories of Luther Burbank and His Plant School.* Scribner.

The childhood, school days, discoveries, and creations of Luther Burbank, "lover of plants and lover of children."

13. Stewart, Elinor P., *Letters of a Woman Homesteader.* Houghton.

Work and fun and romance on a Western ranch as pictured with humor by a woman who with her small daughter went to Wyoming as housekeeper for a well-to-do Scotchman.

14. Tappan, Eva March, *Diggers in the Earth.* Houghton.

The digging of coal, the quarrying of stone, the mining of gold, silver, iron, and copper, and the obtaining of petroleum and salt, are among the topics treated in a simple and concrete way in this book. The author's *Farmer and His Friends* is an equally vivid picture of man's cultivation of the soil and his use of domesticated animals.

15. Verrill, Alpheus Hyatt, *Marooned in the Forest.* Harper.

The experiences of a man who, owing to the death of his guide, found himself alone in a wilderness. The book tells how he won his struggle for life and finally made his way back to civilization.

16. White, Stewart Edward, *The Blazed Trail.* Grosset.

A story of the hard and adventurous life of lumbermen and log-drivers in the logging-camps of Michigan in the days when the State was a centre of the lumber industry.

17. Wyss, Johann David, *The Swiss Family Robinson.*

The adventures and victories over nature of a Swiss family who were shipwrecked on a lonely island in the South Pacific.

A. CONTESTS WITH NATURE

1. ALONE IN A FOREST

ALPHEUS HYATT VERRILL

While going through the swift rapids of the river the hero of this story was thrown from his canoe, stunned by striking a large stone in the stream, washed ashore by the current, and awoke to find himself alone in the wilderness. His guide had vanished, and the canoe was nowhere to be seen. Read the story silently, noticing especially how the hero secured fire and the different methods he used to obtain food.

I was alone in the heart of the great woods, miles from a settlement and without food, weapons, shelter, or anything save the clothes upon my back and the few trifles in my pockets. Possibly, I thought, the canoe might be washed ashore with its contents, or Joe, my guide, might be safe and in the vicinity. With these ideas strong in my mind I rose and slowly walked along the river's bank. Presently I called out Joe's name, but only the soft echo of the woods replied. Again I trudged on, frequently calling and ever searching, but not a sign of my guide or of my outfit could I find.

At last, convinced that Joe had been lost and that the canoe and its contents were gone forever, I seated myself upon a log and strove to look squarely at the future. It would have been bad enough to be cast away in a country

which I knew, but here I was completely at a loss. I had trusted entirely to my guide, and I knew nothing of this wilderness nor of the way to the settlements.

My clothing had partly dried, but with the passing of the bit of sunlight from the opening between the trees, the air had become chilly, and I shivered with cold. Rising from my seat, I strode back and forth, swinging my arms and striving by exercise to regain a feeling of warmth. Activity, even of this sort, did me a world of good, and I began to plan for my immediate wants. Shelter I must have, and warmth, before night fell, and while I was not hungry, I realized that food would become a pressing need by the following morning.

Fire I *must* obtain, and in a mad hope that at least one good match might still remain, I sought feverishly and emptied every one of my pockets upon a smooth rock. My total possessions thus displayed consisted of a small bunch of keys, a few small coins, a cambric handkerchief, a heavy jack-knife, and the headless sticks of some matches from which the phosphorus had been completely soaked off. With the bitterest disappointment I gazed at these few articles, for of them all the knife was, as far as I could see, the only thing of value to me in my present plight. With it I thought I might be able to fashion a bow-drill and spindle, and thus obtain fire, a feat I had accomplished in my youth when "playing Indian," but I well knew the difficulty in obtaining just the proper kind of wood, and I realized that a search for it would consume much time, whereas but an hour or two of daylight now remained.

Then flint and steel occurred to me. I had the steel in my knife, but I did not know whether flint was to be found in the vicinity. However, I rose, made my way to the stony edge of the river, and sought diligently for some bit of rock which resembled flint. Each piece that struck my fancy I tried with my knife, and several gave off faint, bright sparks. All these I pocketed and, having obtained an assortment, I

retraced my way to the rock whereon I had left my other possessions, and prepared to try my hand at obtaining fire by means of my knife and the pebbles.

I realized that the tiny sparks which I could obtain in this way would never ignite a twig, or even a bit of bark, and that some inflammable tinder, which would catch the spark and which could then be fanned to a flame, must be secured before I could hope to succeed. As I was thinking of this my gaze fell upon a black-edged hole in my handkerchief. It had been burned, a few days before, by a spark from Joe's pipe. The incident was too trivial to have filled my thoughts for an instant at another time, but now, as all its details came back to me with a rush, I gave a shout of joy as I realized that this burned hole and the events which had caused it had solved my puzzle.

Seizing the square of cotton cloth, which was now quite dry, I weighted it down with bits of stone — for the apparently useless handkerchief had now become of the utmost value to me — and hurried into the woods in search of dry twigs and other inflammable material. I had not long to hunt, for dead and dried trees were all about; several white birches furnished sheets of paper-like bark, and with a great armful of fire-wood I returned to my rock. Gathering the handkerchief into a loosely crumpled mass, I placed it on the rock, held the most promising of my pebbles close to it, and struck the stone sharply with the back of my knife-blade. A little shower of sparks flew forth at the blow, but none fell upon the handkerchief. Again and again I tried, each time holding the stone in a different position, and trying my best to cause the sparks to fall upon the handkerchief. Finally I gathered the cloth in my hand, and holding the pebble in the midst struck it with my knife.

Sparks gleamed against the handkerchief, but no sign of charring cloth or wisp of smoke rewarded me. Surely, I thought, these sparks must be as hot as the tiny, glowing ember from Joe's pipe, and I unfolded and examined the

handkerchief about the burned spot. Perhaps, I thought, this particular part of the cloth was more inflammable than the rest, and gathering up the handkerchief, with the old burn close, I struck the pebble again with my knife.

Carefully I examined the cloth and the next instant dropped knife and pebble and cried aloud in triumph. At one edge of the charred hole a tiny speck of red glowed in the dusk of coming evening, and spread rapidly in size. Carefully I blew upon it, folded another corner of the cloth against it, and waved the handkerchief back and forth. Brighter and brighter the spark gleamed; a tiny thread of smoke arose, and an instant later a little tongue of flame sprang from the cambric, and I knew that fire, warmth, and comfort were mine.

It was but an instant's work to ignite a piece of birch bark and push it among the pile of wood and twigs, and then, carefully extinguishing the handkerchief — for it had now grown precious in my eyes — I squatted before the blazing fire and revelled in the comforting warmth. My efforts to obtain fire and the extent to which I had concentrated my mind on this problem had kept me busy until now, but, once the fire was blazing merrily, and an ample supply of fuel was at hand, I felt absolutely worn out.

The sun had set and the forest was black as midnight, but the sky was still bright with the afterglow and the river shone like silver between its shadowy banks. There was no hope of finding berries or roots in the woods after dusk. I had no means of catching game or fish, which, I knew, were abundant, and I commenced to think that I would die of starvation before morning, when I suddenly recalled having seen a number of fresh-water mussels in some shallow backwaters of the river while hunting for my flinty pebbles. I had never eaten these shell-fish, but I felt sure they were edible, and, seizing a blazing pine knot from the fire, I made my way to the shore and soon found the pools where I had noticed the mollusks.

There were not many — a bare dozen were all I could find that night — but I felt that these would be far better than nothing, and in a few moments I had them baking on a bed of hot coals. Hardly waiting for them to cook, I raked them forth and devoured them ravenously. Never did choicest food taste so delicious and so welcome to my lips as did those half-baked, unseasoned mussels eaten beside my fire in the wilderness. Few as they were, they served to refresh me greatly and to drive away the most pressing pangs of hunger. Piling several huge logs on the fire, I formed a rude bed of fir twigs and, casting myself upon it, fell instantly into a deep, dreamless sleep.

I was awakened by a shaft of sunlight striking my face, and opened my eyes to find the day well advanced. My first thought was of the fire, which had burned completely out. A thread of bluish smoke arose from the heap of ashes, however, and by raking these aside and thrusting bits of birch bark amid the embers I soon had a new blaze started, which I piled high with dry wood. Although wonderfully strengthened by my long sleep, I was very hungry, and as soon as the fire was going well I hurried to the river for more mussels. I found a few here and there, and with a dozen or two went back to the fire and presently was breakfasting off the shell-fish.

I realized that while these would prevent me from dying of hunger, I would very soon be forced to search for something else to eat. As I ate my mussels, I sought to devise some method of securing game, but every plan that occurred to me was spoiled by some unsurmountable obstacle.

I had often snared game and had even caught partridges with a slender noose on the end of a pole. But a snare required a fine line, a slender wire or a horsehair, and I had none of these. Fishing with a line was cast aside for the same reason, with the added lack of a hook. Then a bow and arrow occurred to me, but I soon realized that arrows without feathers or sharp, heavy points would be of no value, and

that neither heads nor feathers were within reach. Then I thought of spears, for I knew that many savage tribes used spears both in fishing and in hunting, and I decided to try my skill at harpooning some unsuspicious fish, or some unusually stupid partridge.

It was a long time before I could find a straight, light stick, but at last I discovered a slender pole of spruce cast up by the river. By whittling and trimming, I worked it into a straight, well-balanced shaft which I judged would fulfill my requirements. I tried throwing it several times and found it easy to handle, but it could not be depended upon, for one end was nearly as heavy as the other, and it would fly sideways and strike a glancing blow as frequently as it would strike end on.

I realized that a head of some sort was required, but this I could not furnish, and rather than lose all the time I had spent on it I determined to try my hand at spearing a fish before throwing my weapon aside. Whittling the end to a sharp point and cutting numerous barbs, or notches, in it, I walked to the river and looked carefully into each pool. I saw several fish, but each darted out of view as I plunged the spear downward, and I was about to abandon my attempts when luck favored me.

Approaching one small pool, I gave a start as a great bullfrog leaped almost from beneath my feet with a loud croak. A moment later he appeared on the farther side of the pool, his goggly eyes just showing above the water. Approaching him carefully, I drove my sharpened stick at his big, green body. It was a lucky stroke, and I drew my first victim from his watery home with a wonderful feeling of elation to think that unaided and alone I had actually succeeded in hunting and capturing a live wild creature to serve my needs.

Some days later I determined to try my hand at trapping and also to attempt to capture some trout. It occurred to me that by braiding fine roots together I could devise a fishing-line, but the question of a hook then confronted me, and

I decided to try to bail the water from a pool before experimenting with hook-making.

I soon found a pool containing several fine fish, and cautiously, for fear the trout might slip out among the stones, I piled gravel, small rocks, and mud in all the crevices which connected the pool with the running waters of the brook. All I had to do was to scoop out the contents, leave the trout floundering about on the bottom, and pick them up with my hands. This all sounds very simple and easy, but I had no scoop with which to bail out the water, and until I attempted the work I did not dream what a task I had set myself.

I first tried bailing out the water with my hands, but as fast as I threw it out more oozed in, and I soon gave this up as impossible. Then it occurred to me that one of my shoes might serve as a dipper. Removing it from my foot, I tried to throw out the water by this means. I succeeded in making some progress, but very little, and I commenced to think that all my work had gone for naught when a bit of birch-bark caught my eye, and I had an inspiration.

Many a time I had used birch-bark dippers and cups for drinking; I had seen boxes and packs made of the material. In fact, my guide had once proved to me that water could be boiled in a birch-bark dish. It took but a few moments to strip a large sheet of bark from a tree, and but a few moments more to bend this into a deep, box-like form. The ends were easily secured by means of hemlock roots, and with this bark dipper, which would easily hold a gallon of water, I proceeded to empty the pool. In a short time the water was reduced to an inch or two at the bottom, and four fine trout were the reward of my labors.

I dined well upon my fish and decided to set forth to find my way to a settlement as soon as possible, for, now that I could obtain trout so readily, I had little fear of starving. I deemed it wise, however, first to wait until I could be sure of the exact points of the compass.

Thinking of such matters and glancing only now and then

at the trees to assure myself of my direction, I was suddenly aroused by a large rabbit which leaped from beside a dead stump almost at my feet, and scampered off among the shadows. For a moment I stood still, watching the creature as he flashed across the open spaces and thinking regretfully that a fine supply of food was flitting beyond my reach. Then glancing down, I caught sight of a great mass of fungous growth upon the base of the stump from which the hare had jumped. One side of moss had been eaten away and bits of the nibbled fungus were strewn upon the earth.

This, then, was what the hare had been eating, and I realized that by setting a snare or trap beside it I might be able to capture the rabbit. There was no time like the present for attempting the feat, and I at once set about preparing a trap. It was merely a simple "twitch-up," such as every boy uses for catching rabbits and partridges; while a few days before the trap would have been beyond me, it was now simple, with my knowledge of hemlock roots and the self-reliance which I was so rapidly acquiring.

Cutting a number of short sticks, I pushed them into the earth about the fungus, thus inclosing it on all sides but one. On either side of the opening thus left I drove two stout stakes with notches near their upper ends. From a bit of dead wood I then whittled out a spindle-shaped piece just long enough to reach from one of these stakes to the other. Then with a fine hemlock root I formed a noose, tied the spindle to the fibre just above the noose, and fastened the end of the root to the tip of a small sapling close by. Bending down the latter, I slipped the spindle into the notches in the stake, spread the noose across the opening, and my snare was complete.

I was proud of my work, simple as it was, and was confident that when the hare returned to finish his meal he would push his head through the noose, dislodge the spindle, and would be jerked into the air and killed by the spring of the sapling. I stood for a moment looking at the snare and the

fungus, and suddenly roared with laughter at my own stupidity. Here I had been working for nearly an hour to set a trap which might catch the rabbit, and within a few inches was a supply of food of far more value and to be had without the least effort. Surely if a rabbit could eat the fungus, so could I, and I plucked a bit of the queer growth and tasted it.

I reached my shelter without further adventure and at once prepared to cook and sample the fungus. I was not at all sure as to the best method of cooking it, and decided to try a small quantity in various ways. I therefore placed a lump among the hot coals to roast like a potato, while I hung another lump on a green stick before the fire to broil.

Hitherto broiling and roasting had been my sole means of cooking food, but now, having remembered that my guide had once showed me how to boil water in birch-bark, I made a rude pot of this material, placed water and fungus within, and set the whole over a bed of hot coals covered with ashes. The bit of fungus to be broiled soon shriveled up and was transformed into a leathery-like material, tasteless and useless, while the piece roasting in the coals sputtered and sizzled, and might as well have been a bit of pine bark at the end of a few minutes.

As both of these methods were failures, I watched with some anxiety the piece boiling in the birch-bark pot. When it had boiled for some minutes I fished a bit out and, as soon as it had cooled, proceeded to taste it. Much to my joy, it had lost its woody flavor and was as sweet and palatable as a boiled chestnut. I at once drew forth all that remained in the pot and dumped in all I had left. Words cannot express the satisfaction I felt at thus having discovered a source of vegetable food which would assure me a supply of provisions without the trouble and labor of trapping animals, catching fish, or hunting frogs and mussels. So far as food was concerned I would have no trouble on my search for the settlement.

—*Adapted.*

CLASS ACTIVITIES

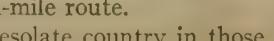
1. Tell in your own words the part of the story which interested you most.
2. What were the most pressing and important needs of the lost man? Name the one which caused him the greatest difficulty. Which of his needs do we all experience?
3. Name the different ways in which his knife was useful. Were any of the other articles in his pockets except his handkerchief of help to him?
4. Did any of the special human powers mentioned on p. 26 help the lost man?
5. *Volunteer work for Boy Scouts or Camp Fire Girls:*
   a. Show the class how to make fire with flint and steel.
   b. Show the class how to make fire with a bow-drill.
   c. Explain how to find directions by examining trees (see p. 38).
   d. Put on the blackboard a drawing which will explain the rabbit trap described on p. 38.

ADDITIONAL READINGS. — 1. "The Discovery of the North," R. E. Peary, in *National Geographic Magazine*, 20: 896–915. 2. *Adrift on an Ice Pan*, W. T. Grenfell. 3. "Dr. Grenfell's Winter Practice," N. Duncan, in *Book One*, pp. 278–282. 4. "Peary as a Leader," D. B. MacMillan, in *National Geographic Magazine*, 37: 293–322. 5. "Roald Amundsen," M. H. Wade, *Light Bringers*, 196–242. 6. "Robert Edwin Peary," *ibid.*, 1–63.

2. TURKEY RED

FRANCES GILCHRIST WOOD

This story is made up of four main parts which are put together somewhat like the links in a chain, as follows:



See if you can tell where each link ends and a new one begins.

The old mail-sled running between Haney and Le Beau, in the days when Dakota was still a Territory, was nearing the end of its hundred-mile route.

Dakota was a desolate country in those days: geographers

still described it as The Great American Desert. Never was there anything as lonesome as that endless stretch of snow, excepting the same desert burned brown by the hot wind of summer. Nothing but sky and plain and its voice, the wind, unless you might count a lonely sod shack, miles away from a neighbor, miles from anywhere.

There were three men in the sled: Dan, the mail-carrier, crusty, belligerently Western; Hillas, a younger man, hardly more than a boy, living on his claim near the end of the stage-line; the third, a stranger from "the East." He had given his name as Smith, and was as inquisitive about the country as he was silent about his business there. Dan plainly disapproved of him.

They had driven the last cold miles in silence when the stage-driver turned to his neighbor. "Letter didn't say anything about coming out to look over the country, did it?"

Hillas shook his head. "It was like all the rest, Dan. Don't want to build a railroad until the country's settled."

"Can't they see the other side? What it means to the folks already here to wait for it?"

The stranger thrust a suddenly interested face above the handsome collar of his fur coat. He looked out over the waste of snow.

"You say there's no timber here?"

Dan maintained unfriendly silence, and Hillas answered: "Nothing but scrub on the banks of the creeks."

"Any ores — mines?"

The boy shook his head. "We're too busy rustling for something to eat first. And you can't develop mines without tools."

"Tools?"

"Yes, a railroad first of all."

Dan shifted the lines from one fur-mittened hand to the other, as he looked along the horizon a bit anxiously. The stranger shivered visibly.

"It's a God-forsaken country. Why don't you get out?"

Hillas, following Dan's glance around the blurred sky-line, answered absently: "Usual answer is, 'Leave? It's all I can do to stay here.'"

Smith looked at him irritably. "Why should any sane man ever have chosen this frozen wilderness?"

Hillas closed his eyes wearily. "We came in the spring."

"I see!" The edged voice snapped. "Visionaries!"

Hillas's eyes opened again, wide. He spoke under his breath as if he were alone.

"Visionary, pioneer, American. Perhaps that is what we are." Suddenly the endurance in his voice went down before a wave of bitterness. "The first pioneers had to wait, too. How could they stand it so long!"

The young shoulders drooped as he thrust stiff fingers deep into his coat pockets. He slowly withdrew his right hand holding a parcel wrapped in brown paper. He tore a flap in the cover, looked at the brightly colored contents, and returned the parcel, his chin a little higher.

Dan watched the northern sky-line restlessly. "It won't be snow. Look like a blizzard to you, Hillas?"

The traveller sat up. "Blizzard?"

"Yes," Dan drawled, "the real Dakota article, where blizzards are made. None of your eastern imitations, but a ninety-mile wind. Only one good thing about a blizzard — it's over in a hurry. You get to shelter or you freeze to death."

A gust of wind flung a powder of snow stingingly against their faces. The traveller withdrew his head turtle-wise within the handsome collar in final condemnation. "No man in his senses would ever have deliberately come here to live."

Dan turned. "Wouldn't, eh?"

"No."

"You're American?"

"Yes."

"Why?"

"I was born here. It's my country."

"Ever read about your Pilgrim Fathers?"

"Why, of course."

"Frontiersmen, same as we. You're living on what they did. We're getting this frontier ready for those who come after. Want our children to have a better chance than we had. Our reason's same as theirs. Country's all right if we had a railroad."

"Humph!" With a contemptuous look across the desert. "Where's your freight, your grain, cattle——"

"*West*-bound freight, coal, feed, seed-grain, and more neighbors."

"One-sided bargain. A road that hauls empties one way doesn't pay."

The angles of Dan's jaw showed white. "Maybe. Ever get a chance to pay your debt to those Pilgrim pioneers? Ever take it? Think the stock was worth saving?"

He lifted his whip-handle toward a pin-point of light across the stretch of snow. "Mis' Clark lives there, a mile back from the stage-road. Clark's down in Yankton earning money to keep them going. She's alone with her baby, holding down the claim."

The whip-stock followed the empty horizon half round the compass to a lighted red square, two miles away. "Mis' Carson died in the spring. Carson stayed until he was too poor to get away. There are three children — oldest's Katy, just eleven." Dan's words failed, but his eyes told. "Somebody will brag of them as ancestors some day."

Dan's jaw squared as he levelled his whip-handle straight at the traveler. "I've answered your questions, now you answer mine! We know your opinion of the country — you're not traveling for pleasure or your health. What are you here for?"

"Business. My own!"

"There's two kinds of business out here this time of year. 'Tisn't healthy for either of them." Dan's words were measured and clipped.

A gray film dropped down over the world, a leaden shroud that was not the coming of twilight. Dan jerked about, his whip cracked over the heads of the horses, and they broke into a quick trot.

"Hillas," Dan's voice came sharply, "stand up and look for the light on Clark's guide-pole about a mile to the right. God help us if it isn't burning."

Hillas struggled up, one clumsy mitten thatching his eyes. "I don't see it, Dan. We can't be more than a mile away. Hadn't you better break toward it?"

"Got to keep the track 'til we — see — light!"

The wind tore the words from his mouth. The leaders disappeared in a wall of snow, but Dan's lash whistled forward in reminding authority. There was a moment's lull.

"See it, Hillas?"

"No, Dan."

Tiger-like the storm leaped again. The horses swerved, bunched, backed, tangled. Dan stood up shouting his orders above the storm.

Again a breathing space. As it came, Hillas shouted: "I see it — there, Dan! It's a red light. She's in trouble."

The sled lunged out of the road into unbroken drifts. Again the leaders swung sidewise before the lashing wind. Dan swore, prayed, mastered them with far-reaching lash, then the off leader went down. Dan felt behind him for Hillas and shoved the reins against his arm.

"I'll get him up — or cut leaders — loose! If I don't — come back — drive to light. *Don't — get — out!*"

Dan disappeared in the white fury. There were sounds of a struggle; the sled jerked sharply and stood still. Slowly it strained forward.

Hillas was standing, one foot outside on the runner, as they traveled a team's length ahead. He gave a cry: "Dan! Dan!" and gripped a furry bulk that lumbered up out of the drift.

"All — right — son." Dan reached for the reins.

Frantically they fought their slow way toward the blurred light, staggering on in a fight with the odds too savage to last. They stopped abruptly as the winded leaders leaned against a wall which loomed between themselves and the fury.

Dan stepped over the dashboard and groped his way along the tongue between the wheel-horses. "It's the shed, Hillas. Help get the team in." The exhausted animals crowded into the narrow space without protest.

"Find the guide-rope to the house, Dan?"

"On the other side, toward the shack. Where's — Smith?"

"Here, by the shed."

Dan turned toward the stranger's voice.

"We're going 'round to the blizzard-line, tied from shed to shack. Take hold of it and don't let go. If you do you'll freeze before we can find you. When the wind comes, turn your back and wait. Go on when it dies down, and never let go the rope. Ready? The wind's dropped. Here, Hillas, next to me."

Three blurs hugged the sod walls around to the northeast corner. The forward shadow reached upward to a swaying rope, lifted the hand of the second, who guided the third.

"Hang on to my belt, too, Hillas. Ready — Smith? Got the rope?"

They crawled forward, three barely visible figures, six, eight, ten steps. With a shriek the wind tore at them, beat the breath from their bodies, cut them with stinging needle-points, and threw them aside. Dan reached back to make sure of Hillas, who fumbled through the darkness for the stranger.

Slowly they struggled ahead, the cold growing more intense; two steps, four, against the mounting fury of the blizzard. And then the rope broke! Dan, clinging to the broken cord, rolled over and found Hillas, with the frayed end of the line in his hand, reaching about through the drifts for the stranger. Dan crept closer, his mouth at Hillas's ear,

shouting: "Quick! Right behind me if we're to live through it!"

The next moment Hillas let go the rope. Dan reached madly. "Boy, you can't find him — it'll only be two instead of one! Hillas! Hillas!"

The storm screamed louder than the plainsman and began heaping the snow over three obstructions in its path, two that groped slowly, and one that lay still. Dan fumbled at his belt, unfastened it, slipped the rope through the buckle, knotted it and crept its full length back toward the boy. A snow-covered something moved forward guiding another; one arm, groping in blind search, reached and touched the man clinging to the belt.

Beaten and buffeted by the ceaseless fury they slowly fought their way, hand-over-hand, along the rope, Dan now crawling last. After a frozen eternity they reached the end of the line, fastened man-high against a second haven of wall. Hillas pushed open the unlocked door, the three men staggered in and fell panting against the side of the room.

The stage-driver recovered first, pulled off his mittens, examined his fingers, and felt quickly of nose, ears, and chin. He looked sharply at Hillas and nodded. They stripped off the stranger's gloves; reached for a pan, opened the door, dipped it into the drift, and plunged Smith's fingers down in the snow.

"Your nose is white, too. Thaw it out."

"I'm—" The stranger's voice was unsteady. "I—" but Dan had turned his back and his attention to the homesteader.

The eight-by-ten room made up the entire home. A bed in one corner took up most of the space. The rough boards of the roof and walls had been hidden by a covering of newspapers. Cushions and curtains of turkey-red calico brightened the shack.

The driver had slipped off his buffalo-coat and was bending over a baby, exhaustedly fighting for breath that whistled

shrilly through a closing throat. The mother, scarcely more than a girl, held the baby in tensely extended arms.

"How long's she been this way?"

"She began to choke up day before yesterday, just after you passed on the down trip."

The driver laid big finger-tips on the restless wrist.

"She always has the croup when she cuts a tooth, Dan, but this is different. I've used all the medicines I have — nothing relieves the choking."

The girl lifted heavy eyelids, and the compelling terror back of her eyes forced a question through dry lips:

"Dan, do you know what membranous croup is like? Is this it?"

The stage-driver picked up the lamp and held it close to the child's face. He frowned, putting the lamp back quickly.

"Mebbe it is, Mis' Clark, but don't you be scared. We'll help you a spell."

Dan lifted the red curtains from the cupboard, found an emptied lard-pail, half-filled it with water, and placed it on the oil-stove. He looked questioningly about, discovered a tool-box beneath the cupboard shelves, sorted out a pair of pincers and bits of iron, laying the latter in a row over the oil blaze.

He turned to the girl and opened his lips as if to speak.

Along the four-foot space between the end of the bed and the opposite wall the girl walked, crooning to the sick child she carried. As they watched, the low song died away, her shoulders rubbed heavily against the boarding, her eyelids dropped, and she stood, sound asleep. The next hard-drawn breath of the baby roused her, and she stumbled on, crooning a lullaby.

Smith clutched the younger man's shoulder. "God, Hillas, look where she's marked the wall rubbing against it! Do you suppose she's been walking that way for three days and nights? Why, she's only a child — no older than my own daughter."

Hillas nodded.

"Where are her people? Where's her husband?"

"Down in Yankton, Dan told you, working for the winter. Got to have the money to live."

"Where's the doctor?"

"Nearest one's in Haney — four days' trip away by stage."

The traveller stared, frowningly.

Dan was looking about the room again, and after prodding the gay seat in the corner, lifted the cover, picked up a folded blanket, and hung it over the back of a chair.

"Mis' Clark, there's nothing but steam will touch membranous croup. We saved my baby that way last year. Sit here and I'll fix things."

He put the steaming lard-pail on the floor beside the mother, and lifted the blanket over the baby's head. She put up her hand.

"She's so little, Dan, and weak. How am I going to know if she — if she ——"

Dan rearranged the blanket tent. "Jest get under with her yourself, Mis' Clark, then you'll know all that's happening."

With the pincers he picked up a bit of hot iron and dropped it hissing into the pail, which he pushed beneath the tent. The room was oppressively quiet, walled in by the thick sod from the storm. The blanket muffled the sound of the child's breathing, and the girl no longer stumbled against the wall.

Dan lifted the corner of the blanket and another bit of iron hissed as it struck the water. Smith leaned toward Hillas.

"Stove — fire?" with a gesture of protest against the inadequate oil blaze.

Hillas whispered: "Can't afford it. Coal is $9.00 in Haney, $18.00 here."

They sat with heads thrust forward, listening in the silence. Dan lifted the blanket, hearkened a moment, then — "pst!"

another bit of iron fell into the pail. Dan stooped to the tool-chest for a reserve supply when a strangling cough made him spring to his feet and hurriedly lift the blanket.

The child was beating the air with tiny fists, fighting for breath. The mother stood rigid, arms out.

"Turn her this way!" Dan shifted the struggling child, face out. "Now watch out for the——"

The strangling cough broke, and a horrible something — "It's the membrane! She's too weak — let me have her!"

Dan snatched the child and turned it face downward. The blue-faced baby fought in a supreme effort — again the horrible something — then Dan laid the child, white and motionless, in her mother's arms. She held the limp body close, her eyes wide with fear.

"Dan, is — is she ——?"

A faint sobbing breath of relief fluttered the pale lips that moved in the merest ghost of a smile. The heavy eyelids half-lifted, and the child nestled against its mother's breast. The girl swayed, shaking with sobs. "Baby — baby!"

She struggled for self-control and stood up straight and pale. "Dan, I ought to tell you. When it began to get dark with the storm and time to put up the lantern, I was afraid to leave the baby. If she strangled when I was gone — with no one to help her — she would die!"

Her lips quivered as she drew the child closer. "I didn't go right away, but — I did — at last. I propped her up in bed and ran. If I hadn't —" Her eyes were wide with the shadowy edge of horror. "If I hadn't — you'd have been lost in the blizzard, and — my baby would have died!"

She stood before the men as if for judgment, her face wet with tears. Dan patted her shoulder dumbly, and touched a fresh, livid bruise that ran from the curling hair on her temple down across cheek and chin.

"Did you get this then?"

She nodded. "The storm threw me against the pole when I hoisted the lantern. I thought I'd — never — get back!"

It was Smith who translated Dan's look of appeal for the cup of warm milk and held it to the girl's lips.

"Drink it, Mis' Clark, you need it."

She made heroic attempts to swallow, her head drooped lower over the cup and fell against the driver's rough sleeve. "Poor kid, dead asleep!"

Dan guided her stumbling feet toward the bed that the traveler sprang to open. She guarded the baby in the protecting angle of her arm into safety upon the pillow, then fell like a log beside her.

"Poor kid, but she's grit clear through!"

Dan walked to the window, looked out at the lessening storm, then at the tiny alarm-clock on the cupboard. "Be over pretty soon now!" He seated himself by the table, dropped his head wearily forward on folded arms, and was asleep.

The traveler's face had lost some of its shrewdness. He moved restlessly along the bench, then stepped softly to the side of the bed, and straightened the coverlet while his lips twitched. He looked about the room, picked up the gray kitten sleeping contentedly on the floor, and settled it on the red cushion.

He examined with curiosity the few books carefully covered in a corner shelf, took down an old hand-tooled volume, and lifted his eyebrows at the ancient coat-of-arms on the book-plate. He tiptoed across to the bench and pointed to the script beneath the plate. "Edward Winslow (7) to his dear daughter, Alice (8)."

He motioned toward the bed. "Her name?"

Hillas nodded. Smith grinned. "Dan's right. Blood will tell, even to damning the rest of us."

He sat down on the bench. "I understand more than I did, Hillas, since — you crawled back after me — out there. But how can you stand it here?"

Hillas spoke slowly. "I think you have to live here to know. It means something to be a pioneer. You can't be

one if you've got it in you to be a quitter." He reached for his great-coat, bringing out a brown-paper parcel. He smiled at it oddly and went on as if talking to himself:

"When the drought and the hot winds come in the summer and burn the buffalo grass to a tinder, there's a common, low-growing cactus scattered over the prairie that blooms into the gayest red flower you ever saw. It wouldn't count for much anywhere else, but the pluck of it, without rain for months. It's the 'colors of courage.'"

He turned the torn parcel, showing the bright red within, and looked at the cupboard and window with shining, tired eyes.

"Up and down the frontier in these shacks, homes, you'll find things made of turkey-red calico, cheap, common elsewhere —" He fingered the three-cornered flap. "It's our 'colors.'" He put the parcel back in his pocket. "I bought two yards yesterday after — I got a letter at Haney."

Smith sat looking at the gay curtains before him. The fury of the storm was dying down. Dan stirred, looked quickly toward the bed, then the window, and got up quietly.

"I'll hitch up. We'll stop at Peterson's and tell his wife to come over." He closed the door noiselessly.

The traveler was frowning intently. Finally he turned toward the boy who sat with his head leaning back against the wall, eyes closed.

"Hillas" — his very tones were awkward — "they call me a shrewd business man. I am; it's a selfish job and I'm not reforming now. But twice to-night you — children have risked your lives, without thought, for a stranger. I've been thinking about that railroad. Haven't you raised any grain or cattle that could be used for freight?"

The low answer was toneless. "Drought killed the crops; prairie fires burned the hay; the cattle starved."

"There's no timber, ore, nothing that could be used for eastbound shipment?"

The boy looked searchingly into the face of the man.

"There's no timber this side the Missouri. Across the river, it's reservation — Sioux. We —" He frowned and stopped.

Smith stood up, his hands thrust deep in his pockets. "I admitted I was shrewd, Hillas, but I'm not yellow clear through. I had a man along here last fall spying for minerals. That's why I'm out here now. If you know the location, and we both think you do, I'll put capital in your way to develop the mines, and use what pull I have to get the railroad."

He looked down at the boy and thrust out a masterful jaw. There was a ring of sincerity no one could mistake when he spoke again.

"This country's a desert now, but I'd back the Sahara peopled with your kind. Hillas, don't tell me you won't believe I'm — American enough to trust!"

The boy tried to speak. With clenched hands he struggled for self-control. Finally in a ragged whisper: "If I try to tell you what — it means — I can't talk! Dan and I know of outcropping coal over in the Buttes, but we haven't had enough money to file mining claims."

"Know where to dig for samples under this snow?"

The boy nodded. "Some in my shack, too. I —" His head went down upon the crossed arms. Smith laid an awkward hand on the heaving shoulders, then rose and crossed the room to where the girl had stumbled in her vigil. Gently he touched the darkened streak where her shoulders had rubbed and blurred the newspaper print. He looked from the white desert outside to the gay bravery within, and bent his head, "Turkey-red — calico!"

CLASS ACTIVITIES

1. Let four pupils give the story in relay, each pupil telling one part. Before the floor-talks are given, let the class decide on titles for each of the four parts.
2. Why is a railroad important to a frontier region? Which usually comes first, settlement or means of transportation? If possible,

give some illustrations from American history which support your answer.

3. Read the passage which shows why Smith promised to use his influence to secure the railroad.
4. Mention the different kinds of courage shown by the three frontier folk who play a part in the story. Name ways in which each was a conqueror of nature.
5. Name respects in which the Dakota pioneers were like the Pilgrims.
6. What is the climax or the most interesting point in this story?
7. Explain whether the title fits the story.
8. Give examples which show that we are living on what frontiersmen have done. Read again p. 43.
9. Which had the more difficult contest with nature — the man in the forest or the pioneers in Dakota? Mention facts or details which support your opinion.

ADDITIONAL READINGS. — 1. "A Home in the Wilderness," A. H. Shaw, in *Book One*, 12–21. 2. "Homesteaders," H. I. Gilchrist, in *Scribner's Magazine*, 70: 701. 3. "A Day with a Ranchwoman," *ibid.*, 71: 447–450. 4. "Pioneer Farmers of the West," A. H. Sanford, *Story of Agriculture in the United States*, 100–123.

3. PIONEERS! O PIONEERS!

WALT WHITMAN

"'Tis the good reader makes the good book," said Emerson. He meant that what we get from our reading depends on what we bring to it. Keep the story "Turkey Red" in mind as you read this poem; then tell what the story gave you to bring to the poem.

Come my tan-faced children,
Follow well in order, get your weapons ready,
Have you your pistols? have you your sharp-edged axes?
Pioneers! O pioneers!

For we cannot tarry here,
We must march, my darlings, we must bear the brunt of danger,
We the youthful sinewy races, all the rest on us depend,
Pioneers! O pioneers!

O you youths, Western youths,
So impatient, full of action, full of manly pride and friendship,
Plain I see you Western youths, see you tramping with the foremost,
Pioneers! O pioneers!

Have the elder races halted?
Do they droop and end their lesson, wearied over there beyond the seas?
We take up the task eternal, and the burden and the lesson,
Pioneers! O pioneers!

All the past we leave behind,
We debouch upon a newer mightier world, varied world,
Fresh and strong the world we seize, world of labor and the march,
Pioneers! O pioneers!

We detachments steady throwing
Down the edges, through the passes, up the mountains steep,
Conquering, holding, daring, venturing as we go the unknown ways,
Pioneers! O pioneers!

We primeval forests felling,
We the rivers stemming, vexing we and piercing deep the mines within,
We the surface broad surveying, we the virgin soil upheaving,
Pioneers! O pioneers!

CLASS ACTIVITIES

1. Read the poem silently a second time and copy the lines which remind you of incidents or details in "Turkey Red." Be ready to read the passages in "Turkey Red" of which these lines remind you.
2. Describe some of the tasks of pioneers, giving examples from American history.

3. Read aloud the lines which best show the spirit and courage of the pioneers. Read the lines which best show their work of conquest. Read the stanza you like best.
4. *Volunteer work.* From the history of our country, give illustrations showing the truth of these lines about American pioneers:
   a. We must bear the brunt of danger.
   b. All the rest on us depend.
   c. We take up the task eternal.
   d. All the past we leave behind.
5. Explain the fourth stanza.
6. "A Home in the Wilderness," in *Book One* (p. 32), is about pioneer life. What lines in this poem remind you of the experiences of the Shaws?
7. Find selections in Unit Five of *Book One* which illustrate this poem, wholly or in part.
8. Find in the glossary the meaning of these words: pioneer, brunt, sinewy, debouch, detachments, primeval, vexing, stemming, surveying.
9. Are there any pioneers to-day? Are there pioneers other than those who conquered the wilderness? Are there pioneers in education, industry, science? Mention examples and show how each person was a pioneer. Can you name any pioneers in your school?
10. This poem is a trumpet call to war, a war for the conquest of the wilderness. It should be read with fire and vigor, not slowly and softly like a lullaby. Choose members of the class to read it aloud.

CLASS-LIBRARY READINGS

CONTESTS WITH NATURE

1. "Captain Thomas A. Scott, Master Diver," F. H. Smith, in *Stories of the Day's Work*, 69–77.
2. "Billy Topsail," Norman Duncan, *ibid.*, 120–130.
3. "The Backwoodsman," Theodore Roosevelt, *ibid.*, 204–209.
4. "The North Pole," R. E. Peary, *ibid.*, 283–290.
5. "The Man Who Named Mount Whitney," E. T. Brewster, *Vocational Reader*, 66–73.
6. "Trapped by the Wire," A. W. Tolman, *ibid.*, 74–84.
7. "Daniel Boone, Backwoodsman," in *Makers of Our History*, 51–67.
8. "George Rogers Clark, Winner of the West," *ibid.*, 80–97.
9. "Sam Houston, Pioneer," *ibid.*, 201–215.

10. "Dr. Grenfell's Parish," Norman Duncan, in *The Joy in Work*, 147–158.
11. "The Habitants," S. E. White, in *The Promise of Country Life*, 7–14.
12. "Alone," R. Stock, *ibid.*, 44–47.
13. "Solitude," H. D. Thoreau, *ibid.*, 48–57.
14. "A Night Among the Pines," R. L. Stevenson, *ibid.*, 68–72.
15. "The Men Who First Crossed the United States," *Compton's Pictured Encyclopedia*, 5 : 1989–1991.
16. "The Great Missionary Explorer of Africa," *ibid.*, 5 : 2033–2035.
17. "Over Wild Trails with the Trapper," *ibid.*, 8 : 3527–3530.
18. "The Deep-Sea Diver," *Careers of Danger and Daring*, 40–86.

B. TAMING PLANTS

1. THE FIRST FARMERS

FREDERICK STARR

Who first tamed the wild grasses? Who first planted and cared for wheat, barley, and corn? The answers to these questions are in this selection. Read it through first in order to get a general view and to locate the chief parts; then read it a second time in order to fix the details in your mind.

Primitive woman, left at home to tend the fire, was the first farmer. While the man was hunting or fighting, the woman by the fire, trying to piece out the scanty fare with roots and stems, barks and leaves, began the peaceful industries of life. She was the first basket-maker; she devised pottery; she first spun fiber into thread, wove threads into fabrics, cut cloths and skins and made them into clothing. It was she, also, who began the cultivation of plants and who first tamed animals.

In her search for roots and fruits she came upon some plant noticed on account of its food value; for fear that some careless hunter might trample this plant underfoot, or that some animal might steal or harm the fruit before it ripened, she protected the plant by putting a few sticks about it. In order that it might have a better chance to grow and bear fruit she cut away or plucked out the plants which prevented

its getting a full share of air and light. This was the beginning of care for plants. Later, she transplanted some young and sprouting plant distant from the fireside in order that it might be more accessible in time of need. Still later, she began to save seed for planting, and with this custom came the clearing of the soil and true agriculture.

While agriculture began with woman, its full development came much later, after man, by irrigation and the help of beasts, perfected it. In roving tribes with flocks and herds the old and feeble men and the women and children remained in village settlements while the men swarmed out to hunt and steal. Meantime the women gathered stores and, if time allowed, raised a new crop. After harvest, all moved to some new village site.

When once brought under cultivation, a really useful plant would be carried along with a tribe in its migrations. The grains, no doubt, arose in Eurasia, and have been carried around the world. Corn, a native of our continent, has spread over the globe.

The first agricultural tool was a sharpened stick for digging up roots. This simple tool was used not only as a digging stick, but also for drilling holes in which to plant seeds. Corn-planting in Central America was, and is, a very simple process: a man going first makes a hole in the ground with his drilling stick; his wife following after him drops in a few seeds of corn; children, following after their parents, with their feet cover the grain with the earth which was loosened by the stick.

Of course, a broader implement, like an oar or paddle, is much better for working soft soil, and many a simple wooden spade has been found in use among primitive peoples. A bent stick or a branch with an offshoot trimmed down makes a simple hoe. The Delaware women used the broad shoulder-blades of animals for spades and hoes.

The first harvesting and threshing was very simple. Indian women simply bent the stalks of wild rice over the edge

of their canoes, and with flat paddles beat the heads until the seeds fell from them into the boats. After animals were tamed, they were brought into service. Among the Indians in the Southwest, for example, threshing is done as follows:

A circular space some yards across is cleared and smoothed and covered with a firm floor of clay. This floor is enclosed by a circle of poles set in the ground and connected by ropes or cords. The grain to be threshed is cut and brought in from the fields; it is heaped upon the threshing floor; a drove of ponies is turned into the enclosure and kept running around and around by a man who stands in the centre with a whip. Soon the many hoofs upon the straw shake the grain from the husks; the ponies are let out, and men go in with great flat wooden shovels and with pitchforks, by means of which they toss the straw up into the air. This is done only when the wind is blowing briskly. As fast as the straw is thrown into the air, it is carried off by the wind; while the wheat or other grain, separated from the straw and chaff, falls back upon the floor.

The grain is then heaped in piles. Women come with great baskets with flaring sides. Filling these with the grain, which still contains a little chaff, they raise the baskets high above their heads, tip them slightly so that a little stream of grain flows in a steady fall, and at the same time gently shake the baskets from side to side. As the grain falls the wind carries away the dirt and chaff and the grain is clear.

It is not easy to decide what should be called the perfection of agriculture. If by perfection we mean ability to do things upon a gigantic scale; if we mean the plowing of a field miles in length by means of great steam plows; if we mean the cutting of the fall harvest by means of mammoth reapers, standing side by side and drawn by great tractors, we ourselves have reached the highest point of agriculture in the wheat-fields of the great Northwest.

There is, however, another way of looking at the matter.

We might mean by perfection of agriculture the ability to compel each little piece of land to produce its utmost of food for hungry mouths. Our method requires complex machinery, itself a triumph of inventive genius; primitive man uses only the crudest tools. Every piece of work must be judged by its adaptations to local conditions and surroundings. If we judge agriculture in this way, we shall find the most perfect although very simple agriculture, among the ancient folk of Egypt and among the modern millions of China. For in China we have the greatest yield from the soil; we have every available inch of ground in use; and we have no wild plants, no weeds, but one great kitchen garden.

—*Adapted.*

CLASS ACTIVITIES

1. Who were the first farmers? How did this happen?
2. Explain the different steps in the early development of the cultivation of plants.
3. Mention ways by which plants have been carried from one part of the world to another.
4. Describe the farming tools used by primitive peoples. How were harvesting and threshing carried on by them? If possible, bring pictures of primitive tools to class.
5. What is Starr's idea of the "perfection of agriculture"? Does he answer in two ways? Explain.
6. *Reports for volunteers* (find material in *Compton's Pictured Encyclopedia*, *The World Book*, or the references given below):

a. Native plants of North America.
b. Irrigation in ancient Egypt.
c. Farming in China or Japan.
d. Dry farming in Utah.

ADDITIONAL READINGS. — 1. "A Japanese Pearl Farm," in *Literary Digest*, 80: 27–28. 2. "Taming the Wild Blueberry," F. V. Coville, in *National Geographic Magazine*, 22: 137–147. 3. "How the World Is Fed," W. J. Showalter, *ibid.*, 29: 1–110. 4. "The Indians as Farmers," A. H. Sanford, *Story of Agriculture in the United States*, 1–11. 5. "George Washington — Farmer," *ibid.*, 76–91. 6. "The Story of the Plow," *ibid.*, 136–143. 7. "The Agricultural Revolution," H. Thompson, *The Age of Invention*, 110–127. 8. "The Woodland Indians," H. C. Hill, in *Historical Outlook*, 13: 119–123.

HARVEST AND THANKSGIVING

The harvest season has always been looked upon as one of the happiest times of the year. The joy which it brings is revealed in the three poems which follow. The first of these was written by a Greek poet more than two thousand years ago; the next two are from the pens of American authors. Which poem do you like the best?

2. THE HARVEST

ARISTOPHANES

Oh, 'tis sweet, when fields are ringing
With the merry cricket's singing,
Oft to mark with curious eye
If the vine-tree's time be nigh:
Here is now the fruit whose birth
Cost a pang to Mother Earth.

Sweet it is, too, to be telling,
How the luscious figs are swelling;
Then to riot without measure
In the rich, nectareous treasure,
While our grateful voices chime,—
Happy season! blessed time.

3. A SONG OF HARVEST

JOHN GREENLEAF WHITTIER

Once more the liberal year laughs out
O'er richer stores than gems of gold;
Once more with harvest song and shout
Is nature's boldest triumph told.

Our common mother rests and sings
Like Ruth among her garnered sheaves;
Her lap is full of goodly things,
Her brow is bright with autumn leaves.

Oh, favors old, yet ever new;
Oh, blessings with the sunshine sent!
The bounty overruns our due,
The fullness shames our discontent.

We shut our eyes, the bowers bloom on;
We murmur, but the corn ears fill;
We choose the shadow, but the sun
That casts it shines behind us still,

And gives us, with our rugged soil,
The power to make it Eden fair,
And richer fruits to crown our toil,
Than summer-wedded islands bear.

4. THANKSGIVING

EDWARD EVERETT HALE

Praise God for wheat, so white and sweet, of which to make our bread!
Praise God for yellow corn, with which his waiting world is fed!
Praise God for fish and flesh and fowl, he gave to man for food!
Praise God for every creature which He made, and called it good!

Praise God for winter's store of ice! Praise God for summer's heat!
Praise God for fruit-tree bearing seed; "to you it is for meat"!
Praise God for all the bounty by which the world is fed!
Praise God His children all, to whom He gives their daily bread!

CLASS ACTIVITIES

1. Which of these three poems do you like the best? Give reasons.
2. Read lines which show why the harvest is a time of rejoicing.

3. Why is Thanksgiving Day celebrated in the autumn? Tell the story of the first Thanksgiving Day.
4. Mention the chief difference in thought between "The Harvest" and "Thanksgiving."
5. Explain how the harvest is "nature's boldest triumph."
6. Mention favors in your life that are "old, yet ever new."
7. Explain these words: curios, luscious, nectareous, liberal, garnered, Eden.
8. Which of these three poems most resembles this stanza by the English poet, Edmund Spenser:

AUTUMN

> Then came the Autumn all in yellow clad,
> As though he joy'd in his plenteous store,
> Laden with fruits that made him laugh, full glad
> That he had banished hunger.

9. *Volunteer report:* Tell the story of Ruth; find this in *The Bible.* Explain how "our common mother rests and sings like Ruth."

ADDITIONAL READINGS. — 1. "The Huskers," J. G. Whittier. 2. "Apple Gathering," J. J. Pratt, in A. Marble's *Nature Pictures by American Poets*, 178–179. 3. "All Things Bright and Beautiful," C. F. Alexander. 4. "Twenty-fourth Psalm," in *The Bible.* 5. "Fishes and Fisheries of Our North Atlantic Seaboard," J. O. LaGorce, in *National Geographic Magazine*, 44: 567–634. 6. "Fruit of the Earth," W. P. Eaton, in *Harper's Magazine*, 144: 321–330.

CLASS-LIBRARY READINGS

TAMING PLANTS

1. "John Gilley," C. W. Eliot, in *Stories of the Day's Work*, 244–266.
2. "The New American Farmer," H. N. Casson, in *Vocational Reader*, 29–34.
3. "The Corn Song," J. G. Whittier, *ibid.*, 41–43.
4. "John James Audubon, Naturalist," in *Makers of Our History*, 147–158.
5. "Horticulture Offers a New Open-Air Vocation for Women," K. S. Reed, in *Opportunities of Today for Boys and Girls*, 267–269.
6. "The Last Threshing in the Coulee," Hamlin Garland, in *The Joy in Work*, 136–146.
7. "The Story of an Up-to-Date Farm," *Wonder Book of Knowledge*, 556–574.
8. "The Store," *Stories of Useful Inventions*, 13–27.
9. "The Plow," *ibid.*, 73–84.

C. DOMESTICATING ANIMALS

1. CRITICAL MOMENTS WITH LIONS

ELLEN VELVIN

One mark of a good reader is the ability to find information quickly. In this selection the author describes experiences of three lion-tamers, two of whom are named. After the signal to begin reading is given by your teacher, glance through the selection rapidly and find who the three tamers are. When you find them, raise your hand. Then read the entire selection carefully.

It is no longer necessary to tell the public that any performance with wild animals is always attended by very great danger. The old idea that the animals were drugged or that their teeth had been pulled and their claws drawn, or that they were "nothing but a lot of tame cats anyway," has more than once been disproved.

As for the theory that wild animals become "tame," it is seldom now that one even hears the word used in connection with them. But the public does not and can not realize the moments of extreme danger that occur at every performance.

A snarling lion that stands and defies its trainer calls forth thrills of suspense and nervousness from the audience; a tiger that reaches forth its paw and tries to claw at its trainer is stared at with awe and dismay; and yet, more often than not, this is mere child's play compared with some of the

dangers that threaten in parts of the performance that the public thinks are harmless.

Any one who has seen Claire Heliot perform with her twelve lions will remember that, after making them do various acts together, she sends all but two back to their pedestals; the two she singles out do special tricks by themselves. This looks very easy, but there is always one great danger in the performance. One of the most treacherous lions is behind her. Until this was called to my attention I had not noticed anything unusual, except that occasionally one of the lions at the back would get down from its pedestal.

From this time on I watched carefully, and at every performance I saw that this particular lion crept with apparent indifference off his pedestal, and was ordered sharply to return to it by his trainer. While the animals remain on their pedestals she is safe, but a lion prowling about has nothing to think of but mischief. Many a time Miss Heliot has turned round only just in time, and there is always the fear that some day she will not turn quickly enough.

Another dangerous moment is the instant when Miss Heliot, after making the four biggest lions lie down in a row, lies on top of them. This is the most critical act in the whole performance, for while she is prostrate many things might happen. Should one of the lions get up suddenly, she would be at a terrible disadvantage, for one of the first necessities of a trainer is to keep on his feet. But the chief danger lies with the lions at the back of the arena. Should one of them reach her before she gets up, nothing could save her.

In Mundy's animal show, a trainer put his arms round the neck of a lioness and rested his head calmly on hers. It was not much to look at — rather tame, in fact, after some of the other acts; but it was the most dangerous moment in that trainer's performance. He had twice had serious accidents at this part of his performance. He told me that, as the lioness came forward at his signal, unless he put his arms around her neck almost instantly, she would strike at him

sharply with her paw. His face still bore deep scars from previous accidents.

Another trick with this lioness was one in which the trainer took a long strip of meat, put one end of it in his mouth, and let the lioness take the other in hers. Hardly any one in the audience realized the danger of this feat. To allow any wild animal to put its face so close to the face of a person is in itself dangerous; but to give it also the opportunity of snapping or biting at such close quarters is foolhardy.

Since this act generally passed off very quietly, it was not particularly popular with the audience; but one evening, when the lioness was in a bad humor, she missed catching her end of the meat, and instantly sprang for the trainer. He had the presence of mind to throw the piece of meat away from him; but even though a table was between them she tore his throat and nearly killed him. Few people realized that there had been any accident at all, so quickly was the act ended and both the trainer and the lioness taken out of the arena. But I was told afterward that the trainer refused to do the act again.

I asked Captain Bonavita once what he considered his most dangerous moment when he performed with his twenty-seven lions. He said that he thought it was when he first entered the arena. The moment before, when he had to drive this great herd of lions in, was almost as bad; but the first few minutes when the crowd of lions entered were terribly uncertain, and undoubtedly the most dangerous.

In the first place with such a crowd, there was the danger of his being pushed or knocked down. Then there was the danger of his tripping among them, or of stepping on their tails; for many of them would lie down and roll over and over as a preliminary to the performance, and if he were not struck by their feet, he was just as likely to be hit across the face or body by their strong, rope-like tails.

In getting the lions into their places there was also danger, for in such a crowd it is difficult to treat each animal accord-

ing to its peculiar traits; and a flick of the whip intended for one lion which would be fairly indifferent to it, is likely to strike another to which it will mean instant rebellion. In any sort of revolt all the lions will side with the one that caused the trouble.

And yet, it was not at such a time that Captain Bonavita received from the notorious lion, Baltimore, the terrible injuries that made necessary the amputation of his right arm. The accident happened quite suddenly and unexpectedly, as such accidents do. The perilous moments of waiting were over — for waiting in the runway with twenty-seven lions in readiness to enter the arena is truly a perilous time, and one that the audience never thinks of. The twenty-seven lions had walked, ambled, or rushed into the arena, followed by Captain Bonavita. The two doors at the back, with their little eyelet-holes, through which the helpers watch for danger, had been closed and locked.

The band had struck its opening chord with which the trainer always makes his bow to the audience, and, one by one, the lions got up on their pedestals; while Captain Bonavita, quiet, calm, but always keenly alert and watchful, walked about, here and there pointing to a pedestal, flicking his whip lightly at those lions which appeared to forget what they had come for. The performance seemed well on its way, when, in a sudden turn of his lithe, well-built body, Captain Bonavita became aware of a huge brown mass facing him, and two enormous paws striking savagely at his head and shoulders.

The trainer knew in a moment what it meant. The brown mass was Baltimore. The next moment Bonavita was fighting for his life. Before the helpers at the back could rescue him his right arm had been mutilated so terribly that it had to be amputated.

And yet, Captain Bonavita, after nearly a year of nerve-racking agony (following three or four operations), went back to the show business, and performed with the very same lion,

which continued to be noted for his surliness and ill-humor. I once saw Bonavita being photographed with Baltimore; and as I watched him with the brute that had so nearly ended his life, while they were being posed for the photograph, I was unable to detect in the man one little motion of fear, not even a flicker of the eyelids!

CLASS ACTIVITIES

1. This selection is divided into two main parts. The first consists of some general statements about dangers in performances with wild animals, the second of some illustrations of these dangers. See how quickly you can find where the first part ends and the second begins. Do not start to search until you are told to begin. Raise your hand when you find the point of division.
2. Explain whether finding the answer to No. 1 required the same kind of reading called for in discovering who the lion-tamers were.
3. Let the three pupils who first found who the lion-tamers were tell how they looked through the selection in order to find them. Were the same three pupils also the first to find the dividing point between the two parts of the selection? Let the pupils who were first describe their method of finding this point.
4. Find how many critical moments with lions are described in the selection. Do not start until the signal is given.
5. Let four pupils tell the story in relay, agreeing in advance on the part each shall tell.
6. *Volunteer work:* In one of the Class-Library books find a passage which is suitable for an exercise such as is outlined in No. 1.

ADDITIONAL READINGS. — 1. "How Wild Animals are Captured." F. C. Bostock, *Training of Wild Animals*, 109–119. 2. "How Wild Animals Are Taught Tricks," *ibid.*, 143–165. 3. *Behind the Scenes with Wild Animals*, E. Velvin. 4. "Lions," E. Velvin, *Wild-Animal Celebrities*, 1–19. 5. "Some Celebrated Bears," *ibid.*, 43–58. 6. "How Animals Act in Front of the Camera," J. C. Derieux, in *American Magazine*, 97 : 48–51, 107–108. 7. *Lassoing Wild Animals in Africa*, Guy H. Scull.

2. THE TAMING OF ANIMALS

PETER CHALMERS MITCHELL

Reading aim: To understand the difference between taming and domesticating animals.

Man was a hunter almost before he knew how to use weapons. From the earliest times he must have learned something about the habits of the wild animals he pursued for food or for pleasure, or from which he had to escape. Probably as a hunter he first came to adopt young animals, and made the surprising discovery that these were willing to remain under his protection and were pleasing and useful. He passed gradually from being a hunter to becoming a keeper of flocks and herds.

From these early days to the present time, there has been a keen interest in the lower animals, and yet very few of them have been really domesticated. Although the surface of the earth has been explored and our knowledge of the animal kingdom vastly increased, hardly a beast is bred in the farmyard to-day with which the men who made stone weapons were not acquainted, and which they had not tamed.

Of the carnivores[1] only the cat and the dog are truly domesticated. Of the ungulates[2] there are horses and asses, pigs, cattle, sheep, goats, and reindeer. Among rodents[3] rabbits and guinea-pigs, and possibly some of the fancy breeds of rats and mice should be included. Among birds there are pigeons, fowls, peacocks, guinea-fowl, swans, geese, ducks, and canaries. Goldfish are domesticated, and bees and silkmoths must not be forgotten. Such antelopes as elands, fallow-deer, roe-deer, and the ostriches of ostrich farms are on the border-line of being domesticated.

It is difficult to be quite certain as to what is meant by a

[1] *Carnivores* are flesh-eating animals.
[2] *Ungulates* are four-footed animals having hoofs.
[3] *Rodents* are gnawing animals.

tame animal. I have heard of a butterfly which used to come and sip sugar from the hand of a lady. Those who have kept spiders and ants declare that these intelligent creatures learn to know their friends. So also fish like the great carp in the garden of the palace of Fontainebleau, France, and many fishes in private ponds learn to come to be fed.

I do not think, however, that these ought to be called tame. Most of the wild animals in menageries very quickly learn to distinguish one person from another, to obey the call of their keeper, and to come to be fed, although they would be dangerous even to the keeper if he were to enter their cages. Tameness is something more than merely coming to be fed, and many tame animals are least tame when they are feeding. Young carnivores, for instance, which can be handled freely and are affectionate, very seldom can be touched while they are feeding. The real quality of tameness is that the animal does not merely tolerate the presence of man, but takes pleasure in his company and shows some kind of affection.

On the other hand we must not take our idea of tameness merely from domesticated animals, which have been bred for many generations. All of any breed that showed any resistance to man were killed or allowed to escape. Dogs are always taken as the supreme example of tameness, and some writers have almost exhausted the resources of language in praising them. Like most people, I am very fond of dogs, but it is an affection without respect. In the enormous period of time that has passed since the first hunters adopted wild puppies, every dog that showed any independence of spirit has been killed. Man has tried to produce a purely obedient creature, and has succeeded in his task. No doubt a dog is faithful and affectionate, but he would be shot or drowned or destroyed by the police if he were otherwise.

When wild animals become tame, they transfer to human beings the confidence and affection they naturally give their mothers. Every creature that enjoys parental care is ready to give its devotion to other animals or to human beings, if

the way be made easy, and if it be treated without too great violation of its natural instincts.

The capacity to be tamed is greatest in those animals that remain longest with their parents, and that are most intimately associated with them. The capacity to learn new habits is greatest in those animals which learn most from their parents, and for which the period of youth is not merely a period of growth but a time in which a real education takes place. These capacities of being tamed and of learning new habits are greater in the higher mammals than in the lower mammals, greater in mammals than in birds, and greater in birds than in reptiles. These capacities are much greater in very young animals, among which dependence on the parents is longest, than in older animals; and they gradually fade away as the animal grows up, and are least of all in fully grown and independent creatures of high intelligence. Such animals, because they are intelligent, may learn, even when they have been captured as adults, that they have nothing to fear, that the bars of their cage not only keep them from attacking persons outside, but keep the persons outside from disturbing them.

I do not know any exception to the rule that carnivores, which are naturally accustomed to maternal care, are easily tamed, and when young make gentle and affectionate pets. Baby tigers, lions, leopards, lynxes, all the bears, hyenas, dogs, wolves, foxes, and all the smaller creatures in the group attach themselves readily to man. As they are usually carried by the mother, they expect to be picked up, and prefer firm, almost rough, handling. As the mother licks them over and cleans them, they like being brushed and scrubbed with a rough, damp towel. Most of all they like being caressed and petted, and allowed to sleep snuggling in a warm lap. Not food, but warmth and physical contact are the surest ways to their affections.

But all of them, and especially the cats, retain a good deal of independence. They like to be left alone sometimes, to

retire into a dark corner which they have selected, and they are rather unpleasant if they are dragged out when they do not wish society. If they are left alone, they will soon come back. To be fond of companionship is no gift peculiar to the dog.

I have had little personal experience with young rodents except with pet rabbits, which, like most boys, I used to keep. These creatures have been so changed by domestication that their qualities are not interesting. It is certain, however, that the young of all rodents are easily tamed; every one has seen or heard of tame rats and mice, hares, and squirrels. They recognize their owners, like to snuggle against them, to climb on them, and readily follow them about. They show in every way a willingness to accept from human beings the attentions they would naturally receive from their mothers.

Young animals born in captivity are no more easy to tame than are those which have been taken from the mother in her native haunts. If they remain with the mother, they very often grow up even shyer than are the mothers themselves. There is no inherited tameness. The facts show that taming is almost entirely a transference to human beings of the confidence and affection that a young animal would naturally give its mother. Domestication is different, and requires breeding a race of animals in captivity for many generations, and gradually weeding out those in which youthful tameness gives way to the wild instincts of adult life.

The degree to which tameness can be carried depends on the natural habits of the animals concerned, on their intelligence, and on their instincts. Taming should be no more than taking advantage of the natural instincts and guiding them in a slightly new direction.

It is quite true that animals of high intelligence can be trained to do many feats entirely outside their natural range. If the animals have good memories, and their trainer

uses punishment freely, he can produce remarkable results; but I cannot understand how persons who think that they are fond of animals can endure seeing most of these tricks. A chimpanzee in evening dress, lighting a cigarette and drinking brandy on a stage, is a shameful abuse of man's power over the ape. Lions, tigers, and polar bears snarling in a pyramid, with the whip cracking and the iron bar and loaded pistol ready to the hand of their trainer, can amuse only very stupid people.

CLASS ACTIVITIES

1. Find passages which explain the difference between taming and domesticating animals. Read aloud the two sentences which best show this difference. Tell in your own words what the difference is.
2. Which takes a longer time, to tame an animal or to domesticate one? Why? Which is an easier undertaking?
3. Mention carnivores, ungulates, and rodents not named in this selection. To which species do most domesticated animals belong?
4. Is either tameness or domestication hereditary? Prove your answers by reading sentences in the selection.
5. Would Mitchell regard the lions of Miss Heliot or Captain Bonavita as tame? Read the paragraph in which you find the answer. Would he approve the performances they give? Tell where you find the answer.
6. Does Mitchell consider the butterfly and carp mentioned in the fourth paragraph as tame? As domesticated?
7. Name the kinds of animals which are easiest to tame. What is the best period in their lives in which to tame them? Why?
8. Tell about your pets and your experiences in taming animals.

ADDITIONAL READINGS. — 1. "Cats and Dogs," W. L. Phelps, in *Scribner's Magazine*, 75: 116–120. 2. "'Big Business' Recognizes the Dog," in *Literary Digest*, 80: 52–55. 3. "The Cat that Walked by Himself," R. Kipling, in *Just So Stories*, 197–221. 4. "A Family of City-Bred Hawks," S. H. Chubb, in *Scribner's Magazine*, 71: 622–629. 5. "Our Friends, the Bees," A. I. Root and E. R. Root, in *National Geographic Magazine*. 22: 675–694. 6. "The Honey Flow," D. L. Sharp, in *Harper's Magazine*, 145: 479–487.

3. WHAT THE EARLIEST MEN DID FOR US

SMITH BURNHAM

Men have always needed food, shelter, clothing, and means of protection against the dangers around them. Our early ancestors needed many thousand years to learn how to provide themselves with these simple necessities of life.

At first men lived upon the roots, herbs, wild berries, and fruits in the forest. Sometimes they found birds' nests in the trees and ate the eggs or the young birds. Occasionally they found a dead bird or animal and thus learned to like the taste of flesh. They hunted for shellfish by the seashore and caught fish in the streams and lakes. When they began to kill the smaller animals with stones or clubs, they became meat eaters. When men had learned how to make knives, spears, and bows and arrows, they could kill the larger animals and get a better supply of food.

For a long time all food was eaten raw, because the use of fire was unknown. We do not know how man discovered fire. He may have kindled it first from a tree set aflame by the lightning. By and by he found that a spark could be produced by striking two stones together in the right way or that he could make a fire by rubbing together two pieces of wood.

The making of fire was one of the most wonderful inventions in the world. Men could now cook their food. At first they roasted bits of meat before the blaze or in the hot ashes. Later, when they had learned how to make vessels that would hold water, they began to boil food over the fire.

For a long time men procured their food by hunting, trapping, and fishing. During this time they began to capture and tame the young of some of the wild animals. Probably the dog was the first domestic animal. The cow was also domesticated at a very early period. Man used her meat and milk for food and her skin for clothing. From her bones and horns he made tools and implements. No other animal

has been more useful to him. The goat and the sheep, the hog and the horse, were all tamed by primitive man. After these animals had been domesticated by the hunters and trappers, some men became shepherds and herdsmen, and wandered from place to place with their flocks and herds in search of the best pastures.

Presently another step was taken toward civilized life. Men had long known that the seeds of some of the wild grasses and plants were good to eat. Now some one noticed that if these seeds were sown they sprang up and brought forth many more seeds. Then some one discovered that the seeds grew better and yielded a more abundant crop if the ground were broken up and made soft before the seed was sown. Because of these discoveries some men began to be farmers. By cultivation, the wild grasses which grew in the fields or beside the rivers were developed into wheat, oats, barley, and rice, the great cereals of the world.

When men began to procure their food by cultivating the soil it became necessary for them to remain in the same locality in order to gather the harvest when it ripened. They could no longer wander from place to place as they had done when they were only hunters or shepherds. They now began to live in permanent villages and to cultivate the land lying near by. In this way the beginning of farming led to a settled life and the making of permanent homes.

Probably the earliest men had only such shelter from the rain and protection from wild animals as the trees gave them; after a time they began to live in dens and caves. Still later they built huts by bending young trees together, weaving branches between them, and covering the whole structure with leaves and bark. When the hut was built of poles covered with the skins of animals, it became a tent. Many of the people who wandered from place to place with their flocks and herds dwelt in tents.

When men settled near the fields that they were beginning to cultivate, they built permanent homes of stone plastered

with mud or of clay bricks dried in the sun. They covered the roofs with brush or timber, then added fireplaces and rude chimneys to these simple houses, and in other ways gradually improved their dwellings.

The first clothing was probably made from the leaves of trees or from grasses matted together. When man became a good hunter he wore the skins of the animals that he killed. The ancestors of all of us were once clad in skins. The women of those early days used to cure the skins of small animals by drying them. They then made garments by sewing the skins together with needles of bone, using the sinews of animals for thread. Still later, the women learned to spin yarn from wool sheared from the sheep and from the thread of the flax which they were beginning to raise. The next step was to weave the yarn and the thread into woolen and linen cloth.

It was because early man had the mind to invent and the hands to make the weapons, tools, and utensils which he needed that he was able to make such progress in procuring food, shelter, and clothing.

Man's first weapon was a club. A stone with which he used to crack nuts was probably his earliest tool. At first he simply found stones of the right shape for his purpose; then he began to chip a piece of flint until it had a rough edge. Now he had a hatchet as well as a hammer. Because he held this hatchet in his hand it has been called a fist-hatchet. A great many of these fist-hatchets have been found. In the course of time he learned how to use thongs of rawhide to bind handles to his fist-hatchets. Now he had axes and spears.

It was a great day in the long climb toward civilized ways of living when some unknown inventor made the first bow. With arrows tipped with sharp bits of stone, man could now kill the larger animals. Stone knives were used to skin the game.

By using pieces of flint with rough edges as saws and files, men began to make tools of horn, bones, and shells. They

now possessed daggers and hammers of horn and awls and needles of bone.

The next great forward step in human progress was taken when men discovered metals and began to use them. Copper was the first metal used, but it was soon found that it was too soft for making many articles. Presently it was discovered that if a little tin were mixed with the copper it made a harder metal called bronze.

Iron is the most useful of all the metals. It is much harder than bronze and better suited in every way for making tools and implements. Man needed a long time to learn how to use iron, because it is not so easy to work as copper and bronze. When he made this "king of metals" his servant, he traveled a long, long way on the road to civilization.

The men invented the weapons and some of the tools of the earliest ages. But it is probable that the women first made many useful tools and utensils. Women wove the first baskets to use in gathering and carrying berries, nuts, and other articles of food. By moulding clay over baskets so that they could be hung over the fire, women gradually learned how to make earthenware pots and bowls.

Women were not only the first basket-makers and potters. They were also the first spinners and weavers. They ground the first grain into flour with mortars and pestles of stone. Later they made simple mills for this purpose. In fact, women who lived before the dawn of history began nearly all the household arts and crafts, and in this way helped all the people who have lived since then.

Our earliest ancestors, like ourselves, found it necessary to carry things from place to place. But they lived long before the days of the railroad and the steamship. The first burdens were borne by the women. They followed the men who hunted, and carried the meat and the hides of the slain animals back to the camp. After the dog, the donkey, and the horse had been tamed, articles to be transported were packed upon their backs or dragged upon the ground behind

them. Sleds were made in the northern lands. Canoes and boats were built by the dwellers by the rivers and the sea. Last of all, the wheeled cart was invented.

We often call our own time the age of invention. The steam engine, the telegraph, and the many uses of electricity are all modern. These improvements have made wonderful changes in our ways of living. But these changes in our lives are not as remarkable as were those made in the lives of our earliest ancestors so long ago by such inventions as the fishhook and the bow and arrow, and such discoveries as how to make fire, how to make pottery, how to domesticate animals and plants, and how to smelt and work the metals.

There are many things that people can do better by working together. It took many centuries for early men to learn to help one another. When they learned how to make fire, the first family group began to be formed. This group was called the clan. The clan simply means those who were kin to each other; that is, a number of men and women who believed that they were descended from a common ancestor. At first the common ancestor was a woman, the clan mother. In those days, relationship was always counted on the mother's side. When a man married he went to live with the clan of his wife. In the course of time groups of clans came to be called tribes. A long time later, after the animals had been domesticated and men had come to own flocks and herds and other kinds of property, the father became the head of the family as we know it to-day.

Words had to be invented, just as tools were. Very slowly men gave names to the things about them and learned to talk to each other. Mothers sang jingles and lullabies to their babies. Around the campfire at night men told how they had hunted the wild beasts. Women talked as they gathered and prepared food or dressed the skins of the wild animals. Mothers, who wanted their children to be brave and wise, told them stories about the bravest and wisest of their clan in the olden time. Perhaps this is why children,

and older people too for that matter, have always been fond of stories. In these ways languages grew and the simple beginnings of literature were made.

People have always been fond of ornaments. The earliest men wore necklaces of teeth and claws. Later they made beads of bronze or of gold. The women tried to make their baskets and their clothes as beautiful as possible by coloring them with natural dyes. Some of the men liked to draw pictures of wild animals upon pieces of bone or upon the walls of their homes in the caves. People learned to count upon their fingers, and to use various parts of their bodies, like the finger, the hand, and the arm, as measures of length. For example, the cubit of which we read in the Bible was the distance from the elbow to the end of the middle finger. Our arts and sciences have all grown from such crude and simple beginnings.—*Adapted from "Our Beginnings in Europe and America," by courtesy of the John C. Winston Company.*

CLASS ACTIVITIES

1. Name five important gifts which we received from the earliest men.
2. Read the selection again. As you read, make a list of the chief steps in man's progress in civilization, as follows:
   a. The making of fire.
   b. The domestication of animals.

   Compare lists and agree on a final class list.
3. In your opinion, which item listed in answer to No. 2 was the more important step in man's advance in civilization? Give reasons for your choice.
4. Name the steps in man's progress which are considered in this selection, but are not mentioned in preceding selections.
5. Questions on details to test the thoroughness of your reading.
   a. What did men eat before fire was discovered?
   b. What were probably the earliest occupations of men?
   c. What were probably the first dwelling places of early men?
   d. What is said to have caused men to adopt a settled life?
   e. Of what were the first permanent houses probably built?
   f. What was man's first weapon?
   g. Of what is bronze made?
   h. Who were the first burden-bearers?

i. How was relationship usually determined among early people?
j. How did primitive man first count?

Give yourself ten points for each question which you answered correctly. What is your score?

6. Which of the steps listed in answer to No. 2 helped man secure food? Which improved his shelter? Which bettered his clothing? Which made him more secure from the dangers around him? (The same item may be given in answer to a number of these questions.) Arrange your answer under column headings as follows:

SECURING FOOD	IMPROVING SHELTER	BETTERING CLOTHING	SECURING PROTECTION

CLASS-LIBRARY READINGS

DOMESTICATING ANIMALS

1. "Farmer John," J. T. Trowbridge, in *Vocational Reader*, 35–37.
2. "Bee-Keeping," W. J. Quick, in *Opportunities of To-day for Boys and Girls*, 126–133.
3. "The Work of a Ranchman," H. Hagedorn, in *The Joy in Work*, 66–79.
4. "The Story in a Honeycomb," in *Wonder Book of Knowledge*, 183–197.
5. "On the Situation, Feelings, and Pleasures of an American Farmer," H. St. John Crevecoeur, in *The Promise of Country Life*, 15–30.
6. "A Barn-door Outlook," John Burroughs, *ibid.*, 73–86.
7. "On the Graces and Anxieties of Pig Driving," Leigh Hunt, *ibid.*, 114–116.
8. "Rab and His Friends," J. Brown, *ibid.*, 127–141.
9. "The Wild-Beast Tamer," *Careers of Danger and Daring*, 293–347.
10. "In the Workshop of the Bees," *Compton's Pictured Encyclopedia*, 1: 359–364.
11. "Our Sagacious Comrade and Helper, the Horse," *ibid.*, 4: 1683–1685; *Book of Knowledge*, 19: 6039–6048.
12. "The Story of Animals," *World Book*, 1: 259–262.

D. USING NATURE'S GIFTS

1. ODE TO FIRE

One of the most impressive ceremonies of the Camp-Fire Girls is the lighting of the camp-fire. When the fuel has been arranged and the girls are seated in a circle around the pile of wood, a Torch-Bearer lights the fire. The ceremony is completed by the singing of a song or by the recitation in unison of this ode. Do you think this poem presents truly what we owe to fire?

O Fire!
Long years ago when our fathers fought with great animals, you were their protection.
From the cruel cold of winter, you saved them.
When they needed food, you changed the flesh of beasts into savory meat for them.
During all the ages your mysterious flame has been a symbol to them for Spirit.
So to-night, we light our fire in remembrance of the Great Spirit who gave you to us.

2. ROAST PIG

CHARLES LAMB

After you have read the first five paragraphs determine whether you think this is a true story.

Mankind, says a Chinese manuscript, for the first seventy thousand ages ate their meat raw, clawing or biting it from

the living animal. The manuscript goes on to say that the art of roasting, or rather broiling, was accidentally discovered in the manner following:

The swine-herd, Ho-ti, having gone out into the woods one morning to get food for his hogs, left his cottage in the care of his eldest son, Bo-bo, a great lubberly boy, who being fond of playing with fire, let some sparks fall into a bundle of straw, which, kindling quickly, spread the conflagration over every part of their poor mansion, till it was reduced to ashes. Together with the cottage (a sorry makeshift of a building), a fine litter of young pigs, not less than nine in number, perished.

Bo-bo was in the utmost consternation, not so much for the sake of the hut, which his father and he could easily build up again with a few dry branches and the labor of an hour or two, as for the loss of the pigs. While he was thinking what he should say to his father, and wringing his hands over the smoking remnants of one of those untimely sufferers, an odor assailed his nostrils, unlike any scent which he had before experienced.

What could it come from? Not from the burnt cottage — he had smelled that smell before — indeed this was by no means the first accident of the kind which had occurred through his carelessness. Much less did it resemble that of any known herb, weed, or flower. A moistening at the same time overflowed his nether lip. He knew not what to think.

He next stooped down to feel the pig, if there were any signs of life in it. He burned his fingers, and to cool them he applied them in his booby fashion to his mouth. Some of the crumbs of the scorching skin had come away with his fingers, and for the first time in his life (in the world's life, indeed, for before him no man had known it) he tasted — crackling!

Again he felt and fumbled at the pig. It did not burn him so much now; still he licked his fingers from a sort of habit. The truth at length broke into his slow understanding, that it was the pig that smelled so, and the pig that tasted so de-

licious. Surrendering himself up to the new-born pleasure, he fell to tearing up whole handfuls of the scorched skin with the flesh next it, and was cramming it down his throat when his sire entered amid the smoking rafters, armed with a cudgel, and finding how affairs stood, began to rain blows upon the young rogue's shoulders, as thick as hailstones, which Bo-bo heeded no more than if they had been flies. The tickling pleasure which he experienced in his lower regions made him quite indifferent to any inconvenience he might feel on his shoulders. His father might lay on, but he could not beat him from his pig, till he had fairly made an end of it, when, becoming a little more sensible to his situation, something like the following dialogue ensued:

"You graceless boy, what have you got there devouring? Is it not enough that you have burned me down three houses with your tricks, but you must be eating fire, and I know not what; what have you got there, I say?"

"O father, the pig, the pig! Do come and taste how nice the burnt pig eats."

The ears of Ho-ti tingled with horror. He cursed his son, and he cursed himself that ever he should have a son that should eat burnt pig.

Bo-bo, whose scent was wonderfully sharpened since morning, soon raked out another pig, and fairly rending it asunder, thrust the lesser half into the fists of Ho-ti, still shouting, "Eat, eat, eat the burnt pig, father, only taste" — with such-like barbarous ejaculations, cramming all the while as if he would choke.

Ho-ti trembled in every joint while he grasped the abominable thing, wavering whether he should not put his son to death for an unnatural young monster, when the crackling scorching his fingers, as it had done his son's, and applying the same remedy to them, he in his turn tasted some of its flavor, which, make what sour mouths he would for a pretense, proved not altogether displeasing to him. In conclusion (for the manuscript here is a little tedious) both father

and son fairly sat down to the mess, and never left off till they had eaten all that remained of the litter.

Bo-bo was strictly ordered not to let the secret escape, for the neighbors would certainly have stoned them for a couple of abominable wretches, who could think of improving upon the good meat which God had sent them. Nevertheless, strange stories got about. It was observed that Ho-ti's cottage was burned down now more frequently than ever. Nothing but fires from this time forward. Some would break out in broad day, others in the night-time; and Ho-ti himself, which was the more remarkable, instead of chastising his son, seemed to grow more indulgent to him than ever.

At length they were watched, the terrible mystery discovered, and father and son summoned to take their trial at Pekin. Evidence was given, the obnoxious food itself produced in court, and verdict about to be pronounced, when the foreman of the jury begged that some of the burnt pig, of which the culprits stood accused, might be handed into the box.

He handled it, and they all handled it; and burning their fingers, as Bo-bo and his father had done before them, and nature prompting to each of them the same remedy, against the face of all the facts, and the clearest charge which judge had ever given — to the surprise of the whole court, townsfolk, strangers, reporters, and all present — without leaving the box, or any manner of consultation whatever, they brought in a unanimous verdict of Not Guilty.

The judge, who was a shrewd fellow, winked at the manifest iniquity of the decision, and, when the court was dismissed, went privately and bought up all the pigs that could be had for love or money. In a few days His Lordship's town house was observed to be on fire. The thing took wing, and now there was nothing to be seen but fires in every direction. Fuel and pigs grew enormously dear all over the districts. The insurance offices one and all shut up shop. People built slighter and slighter every day, until it was feared that the

very science of architecture would in no long time be lost to the world.

Thus this custom of firing houses continued, till in process of time, says my manuscript, a sage arose who discovered that the flesh of swine, or indeed of any other animal, might be cooked (*burnt*, as they called it) without the necessity of consuming a whole house to dress it. Then first began the rude form of a gridiron. Roasting by the string, or spit, came in a century or two later, I forget in whose dynasty. By such slow degrees, concludes the manuscript, do the most useful, and seemingly the most obvious, arts make their way among mankind.

CLASS ACTIVITIES

1. Is this a true story? Give reasons for your answer.
2. Why was Ho-ti horrified at Bo-bo's eating burnt pig? Explain the charges on which he and his son were tried.
3. Explain why Lamb selected China as the scene for the story. Would the United States have served as well? Why?
4. Find details in the last three paragraphs which impress you as absurd. Why did Lamb include them?
5. If this is not a true story, tell how it suggests truly one of the ways in which our ancestors slowly learned how to use the forces of nature.
6. Word study: manuscript, consternation, untimely, nether, booby, crackling, ejaculation, abominable, obnoxious, indulgent, sage, obvious.

3. HOW MEN MADE HEAT WORK

FRANKLIN T. JONES

Read this selection so that you will be able to give a clear, connected account of its contents. To do this, carefully read the selection and then glance over it as a whole to discover the main parts of the author's thought and the order in which these parts come.

ANIMALS AS SOURCES OF POWER

At first man learned to add to his own strength that of the animals. The Eskimo trained his dog to help him draw a

sled over the ice. In the ancient world and even down to modern times the ox has been a helper on the farm and on the journey. The natives of India use the elephant to help them carry their burdens and to lift logs for them in their lumbering. The horse has long been used by man; in the early days only for what were considered the more important and nobler services, such as carrying man himself, and in warfare.

POWER FROM WIND AND WATER

After animals came the harnessing of the wind and water. In the earliest days we find that man knew how to use the wind to drive his boats. The war boats of the Greeks and Romans, unable to rely on the uncertain wind, were driven by oars, but the merchant boats which did not have to move so regularly were carried along with the help of sails.

Still later the wind was harnessed by the invention of the windmill and was used to grind grain, thus helping man in what had been up to that time one of the most laborious of his tasks. After a time man also learned to use the power of the swift streams to do his work. Water is even now one of the most important sources of power. The building of great electric plants in mountain regions where water power is abundant promises to be increasingly a source of profit to man and an aid to industry.

With every new kind of power which he has taken into his service man has found new reasons for making tools and machinery. Without the help of a plow the ox could not till the soil, for the plow is a kind of hand supplied to the animal by the wisdom of man. It would be hard to decide which required the greater intelligence on the part of man, to make the plow or to tame the ox. In the same way the use of wind to drive a boat means making a sail and setting up a mast in the boat. The power of the river can be used only by the man who can invent a water wheel. Machinery needs power to drive it, and power is of no use until it is harnessed by machinery.

HEAT AS A SOURCE OF POWER

There is one kind of power in the world which it took man a long time to learn to use. That is heat. The comfort that comes from a fire and the usefulness of a fire in cooking food were known in the earliest ages, but the use of heat to lift weights and to save human strength was possible only after man had gone a long way on the road of invention.

The first successful method of using heat for power was devised in the tin mines of England in the seventeenth century. These mines could be worked only when they were kept free from water. We are told that pumping out the water from one of these mines required the labor of 500 horses and the men to drive them.

SAVERY'S ENGINE

In 1698 Thomas Savery secured a patent for a pumping device which was the first steam engine. It did not look at all like a modern engine. It had no wheels or moving shafts, but it used heat to do work. The work that it did was to suck water out of the mines. It made the heat from a coal fire do what men and horses had done before.

Savery's engine was by no means economical of fuel. It is easy to understand what we mean by the statement that a machine wastes power. If a man who is trying to lift something can not get hold of it in such a way as to apply all of his strength, his lifting will be very wasteful. We try to make it easy to lift things by putting handles on them. Handles are inventions intended to save human energy. In exactly the same way when a machine can not use its power as it should, there is waste. Savery's engine was wasteful because the tank had to be first heated and then cooled, and a great deal of power went to waste.

It has been calculated that Savery's engine so used steam that he got out of it only about one-twentieth of the work that can be secured from the same amount of steam in a modern engine. Even a modern engine does not use all the

power that there is in steam. Anyone who has seen the steam escaping from a locomotive will realize that a good deal of heat is wasted even in the most perfect modern engine.

NEWCOMEN'S ENGINE

The problem of saving heat and using it to the best advantage has been one of the reasons for constant improvement in machinery. Within a few years after Savery had invented his engine a new pumping engine was invented by Thomas Newcomen. This mechanism worked very much better than Savery's pump and came into extensive use in pumping water out of mines. Many pumping engines of the Newcomen type were manufactured. They made possible the enlargement of the mines. In some cases the mines were sunk to twice the depth that was formerly possible, and thus opened up rich stores of new ore.

WATT'S ENGINE

Accident plays a great part in the history of men and even of nations. James Watt (1736–1819) was not permitted by the guilds or trades-unions to open an instrument-maker's shop in Glasgow. As a result he secured employment at the University of Glasgow to repair apparatus. A model of a Newcomen engine was brought into the shop for repair. Watt at once saw that to work properly a steam engine should always work hot instead of alternately hot and cold, as engines previously invented had operated. He realized that steam, and hence fuel, could be saved and an engine be made capable of doing more work by keeping the cylinder and working parts hot. He therefore introduced a condenser, which accomplished the result desired.

Since his day invention after invention has improved and perfected the steam engine until we have the powerful engines of modern times.

THE POWER OF ENGINES

What the engine does for us can be made clear by one or two comparisons. Thomas Savery used the word "horse-

power" in telling about the work of his pump. James Watt took over the word "horsepower" and gave it a more exact meaning. He estimated that the average cart-horse of London could travel at the rate of 2½ miles per hour and at the same time raise, by means of a rope led over a pulley, a weight of 150 pounds. This is equivalent to raising a weight of 33,000 pounds 1 foot high in one minute. When we say, then, that a locomotive has a horsepower of 1,500 we mean that this locomotive has 1,500 times the power necessary to raise 33,000 pounds 1 foot, or the power of raising 49,500,000 pounds 1 foot in one minute.

The same truth can be put in another way by comparing the carrying power of a freight train with the carrying power of men. A freight train can carry more wheat from Kansas City to Chicago in a given time than could be transported on the backs of 1,000,000 men.

CLASS ACTIVITIES

1. Give a clear, connected account of how men made heat work; tell first the plan for your talk.
2. Name industries in your community which could not be carried on as they now are if the workmen had to depend solely on their own strength.
3. What industries in your community make use of the horse as a source of power? Name industries which use wind or water. Which use electricity?
4. Read the paragraph which tells what man had to make before he could use any source of power except his own physical strength.
5. In what important respect was Watt's steam engine a great improvement over all preceding engines?
6. *Special report for a volunteer.* Tell about the Industrial Revolution and the changes which took place after the invention of labor-saving machinery. (H. C. Hill's *Community Life and Civic Problems*, 344–350.)
7. Make a list of present-day industries which depend on the steam engine.

8. *Volunteer work:*
   a. Explain, with blackboard drawings, how a steam engine works.
   b. Explain how a gas engine works.
   c. Find how much heat is wasted in the best steam engines and locomotives of to-day.
   d. Tell how an electric dynamo works.

9. What is the chief difference between this selection and the following poem, "The Song of Steam"?

ADDITIONAL READINGS. — 1. "The Story of the Steam Age," F. L. Darrow, *Boys' Own Book of Inventions*, 194–211. 2. "Stephenson and the Locomotive," R. Holland, *Historic Inventions*. 3. "The Steam Engine," A. Williams, *How It Works*, 13–43. 4. "The Internal-Combustion Engine," *ibid.*, 87–111. 5. "Coal — Ally of American Industry," W. J. Showalter, in *National Geographic Magazine*, 34 : 407–434. 6. "Steam in Captivity," H. Thompson, *Age of Invention*, 53–83. 7. "The Fathers of Electricity," *ibid.*, 194–219. 8. "Fire-making," F. Starr, *Some First Steps in Human Progress*, 13–29.

4. THE SONG OF STEAM

GEORGE WASHINGTON CUTTER

Harness me down with your iron bands,
Be sure of your curb and rein,
For I scorn the strength of your puny hands
As a tempest scorns a chain.
How I laughed as I lay concealed from sight
For many a countless hour,
At the childish boasts of human might,
And the pride of human power!

When I saw an army upon the land,
A navy upon the seas,
Creeping along, a snail-like band,
Or waiting the wayward breeze;

When I marked the peasant faintly reel
With the toil that he daily bore,
As he feebly turned the tardy wheel,
Or tugged at the weary oar;

When I measured the panting courser's speed,
The flight of the carrier dove,
As they bore the law a king decreed,
Or the lines of impatient love,
I could but think how the world would feel,
As these were outstripped afar,
When I should be bound to the rushing keel,
Or chained to the flying car.

Ha! ha! ha! they found me at last,
They invited me forth at length,
And I rushed to my throne with a thunder blast,
And laughed in my iron strength!
Oh, then ye saw a wondrous change
On the earth and ocean wide,
Where now my fiery armies range,
Nor wait for wind or tide!

In the darksome depths of the fathomless mine
My tireless arm doth play,
Where the rocks ne'er saw the sun's decline
Or the dawn of the glorious day;
I bring earth's glittering jewels up
From the hidden caves below,
And I make the fountain's granite cup
With a crystal gush o'erflow.

I blow the bellows, I forge the steel,
In all the shops of trade;
I hammer the ore and turn the wheel
Where my arms of strength are made;

I manage the furnace, the mill, the mint,
I carry, I spin, I weave,
And all my doings I put into print
On every Saturday eve.

I've no muscles to weary, no brains to decay,
No bones to be laid on the shelf,
And soon I intend you may go and play,
While I manage the world myself.
But harness me down with your iron bands,
Be sure of your curb and rein,
For I scorn the strength of your puny hands
As the tempest scorns the chain.

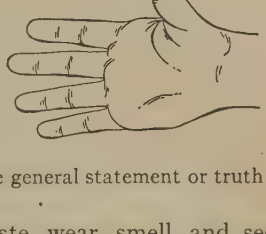
CLASS ACTIVITIES

1. Why does the poet use the same four lines to begin and to end the poem?
2. Explain the chief difference between "The Song of Steam" and "How Men Made Heat Work." How are the two selections alike?
3. Tell what is needed in order to bind steam to a keel or to bind it to a car.
4. Name the inventions using steam for power which have altered the conditions pictured in the second and third stanzas.
5. How does steam perform the various feats mentioned in the fifth and sixth stanzas? Name different inventions through which these feats are accomplished.
6. Which plays the more important part in your community — steam or electricity?
7. *For a volunteer.* Write a poem entitled "The Song of Electricity."
8. Read again the "Ode to Fire" on p. 81. Does it tell truly what we owe to fire? Tell why you are better able to answer this question now than when you first read the poem.

5. NEW MARVELS OF CHEMISTRY IN EVERY DAY LIFE

MARSTON T. BOGERT

This selection is made up of parts which fit together like the parts of a hand.



In this diagram the palm of the hand represents a general statement or truth, and the fingers represent illustrations, or proofs, of the general statement or truth. What would you put in the palm as the general statement or truth in this selection, and what would you place on the fingers as illustrations or proofs of the general statement or truth?

Practically everything we eat, taste, wear, smell, and see has resulted in some way from the ingenuity of chemists. The story of chemistry is like an endless chain — it might begin anywhere, and need never end.

Just now you were looking out of the window. That glass is a product of chemistry. Glass is made of soda, lime, and sand. A mixture of these substances is melted down to a bright-red heat. A big molten ball of it is then gathered on the end of a blowpipe. Air is forced through the pipe, and the ball becomes a bulb, the bulb becomes a long cylinder. At the right temperature the cylinder is laid on a table and slit. The cylinder flattens out. That is window glass.

In the hall door of your home or in your office there is a pane of plate-glass. This is made by casting the molten glass. It is first pressed as smooth as possible, then ground still smoother, then polished. It is a product of recent years, chiefly due to American ingenuity.

The desk at which you work was made with steel tools. The steel of which these tools were made is a chemical composition. And these wood-cutting tools had first to be made with other tools that could *cut* steel.

Once this process was very slow and expensive. The steel tool used in cutting out other tools would get red-hot and lose its "temper," so that it could not cut. Then the worker would lose his temper, too! For he had to stop, resharpen his tools, and waste a great deal of time. Chemists added certain rare metals to the iron that makes ordinary steel, and as a result we have "high-speed steel."

High-speed steel is so expensive that tools are tipped with only a fraction of an inch of it, in much the same way that our finest gold pens are tipped with iridium, to keep them from wearing out. This steel tip is many times as efficient as ordinary steel. Without high-speed steel we could not have cheap typewriters, farm implements, and automobiles; for this product has revolutionized the whole metal industry.

In your medicine-chest, there probably is a little tube containing a substance which is antiseptic, and which solidifies when exposed to air. If you cut your finger or tear away a hang-nail, you apply a little of this substance, and it forms a skinlike covering. That substance is collodion.

Now somewhere near your tube of collodion you may have something made of celluloid, perhaps an eyeshade or a paper cutter. In warm weather especially, you must have noticed that anything made of celluloid smells a good deal like something else you keep handy — camphor. That will not seem strange when I tell you how we came to have celluloid.

In 1863 a boy named John Wesley Hyatt was working as a printer in Albany, New York. He saw an advertisement offering ten thousand dollars for a substitute for ivory billiard balls, and he began to experiment with the hope of getting this reward.

One day, when his fingers were raw from handling type, he went to a cupboard for some collodion to heal his hurts. The bottle containing the collodion had tipped over, and the contents had run out and solidified. When young Hyatt pulled away a little of the stuff from the shelf, he was struck by the fact that it was tough and elastic, and that gave him

an idea. He began experiments, trying to make billiard balls out of collodion.

Presently he heard that some Englishmen had been trying to make camphor and collodion unite to form a solid. The Englishmen had not succeeded, because they had attempted to get the two substances to unite by adding various other substances to them. But Hyatt simply put a mixture of collodion and camphor into a hot press, and out of the press came a semitransparent solid, which he called celluloid. It was hard, light, tough, and could be dyed any color, polished, heated, pressed, stamped, molded, or blown into various shapes.

Innumerable things are made of celluloid: cards and card cases, cuff and collar buttons, cups, drawer knobs, chessmen, piano keys, penholders, spectacle frames, political campaign buttons, hairpins, mirror backs, toy animals, and so on. Young Hyatt's accident with collodion has proved to be the basis of industries worth millions of dollars a year.

Your camera film is made of it. Purses, belts, and leather cushions are often covered with it. Many leather substitutes are made of collodion on canvas.

Years ago the wearing of purple indicated royal birth, for the purple dye was so expensive that none but those "born to the purple" could own it. To-day you can consider anything dyed with purple as a symbol of the marvelous development in our chemical industries.

The original Tyrian or imperial purple of ancient times was secreted by a small sea-snail, found on the eastern coast of the Mediterranean. Behind the head of this snail is a small sac which contains a single drop of a whitish liquid, which when exposed to the air and sunlight becomes first green, then blue, then purple. To get an ounce of the dye the ancients had to extract the liquid from the sacs of at least twelve thousand snails. That is why it cost so much to wear imperial purple.

Modern chemists have learned the chemical constituents

of this purple dye, and now we can make it in any quantity desired by combining certain chemicals in the proper proportion. We get the necessary chemicals from *coal*, and from our brine wells in Michigan.

Coal is the most wonderful substance on earth. We not only get from it the "royal purple" dye, but tens of thousands of other dyes, though only about one thousand of these are in common use.

When you have an aching tooth to be filled, or one that has to be pulled, the dentist fills a hypodermic needle with a certain drug, and this he injects before and behind the tooth so that the nerves are deadened. Then he can fill the tooth, or even pull it, painlessly. That drug is known as novocaine, and we get it from *coal*.

Once the argosies and caravans set out to bring from afar the most costly perfumes, drugs, and spices. To-day we get them from coal. It is from coal that chemists obtain the worst smells and the loveliest perfumes, the most fatal poisons and the most beneficent drugs, the finest flavors, the blackest pitch, the most powerful explosives, and the most brilliant dyes.

When a lump of coal is burned in an open grate, the volatile gases escape up the chimney, and we have the phenomena of heat and light. There remains in the grate only the ash or mineral substance. We have lost the most valuable products.

Now suppose you buy a common clay pipe. In the bowl of the pipe put a small lump of soft coal. Stop up the top of the bowl with clay, and hold the bowl over an ordinary gas jet. Presently, if you hold a lighted match near the opening of the pipe stem, you will see a jet of yellow flame. The gases are burning off.

When all the volatile products have been disposed of, take the clay off the top of the bowl and you will find in the bowl a piece of ordinary coke. Now break the stem of the pipe somewhere near the middle, and you will find de-

posited there some blackish drops of water containing a sticky substance. This substance is *coal tar*, the marvel of chemistry.

We extract coal tar from coal in much the same way I have illustrated, and we get four principal products: gas for light, heat, and power; ammonia water (by distilling the gases through water); coal tar and coke.

From the coal tar we can extract a dozen primary products, and from these we can literally build up hundreds of thousands of new substances. One of the most important of these products is carbolic oil, from which we get carbolic acid — a powerful antiseptic. If we treat the carbolic acid with dilute nitric acid, we find that the original carbolic acid has changed into two new substances. One of these is the source of dyestuffs and photographic developers.

There is practically no end to the substances we can get from coal. We are getting now from each of the crude substances contained in coal tar many hundred times as many products as I have mentioned in connection with carbolic acid. But we shall get many more. What we know about coal to-day is comparable to what we know about a book when we have read only the preface.

CLASS ACTIVITIES

1. Name the most important "New Marvels of Chemistry" described by Bogert.
2. Practically everything we eat, taste, wear, smell, and see has resulted in some way from the ingenuity of chemists. Give examples not mentioned in the selection which support this statement.
3. In answering No. 2, were you illustrating Emerson's words: "'Tis the good reader that makes the good book?" Explain.
4. Bring to class articles made of celluloid, or any other articles which illustrate the marvels of modern chemistry. Tell of what the other articles are made.
5. Tell some boy volunteer to perform before the class the experiment with the clay pipe and the piece of coal.

CLASS-LIBRARY READINGS

USING NATURE'S GIFTS

1. "Chemistry in Overalls," A. D. Little, in *Opportunities of To-day for Boys and Girls*, 58–66.
2. "The Woman Laboratory Worker," E. Robbins, *ibid.*, 248–250.
3. "Thomas A. Edison, Electrician," in *Makers of Our Country*, 353–364.
4. "The Story of Rubber," *Wonder Book of Knowledge*, 98–119.
5. "The Story of Electricity in the Home," *ibid.*, 200–215.
6. "The Story of the Advance of Electricity," *ibid.*, 273–285.
7. "Story of the Taking of Food from the Air," *ibid.*, 458–466.
8. "Hemp," J. L. Allen, in *The Promise of Country Life*, 106–113.
9. "The Magic of Test Tube and Retort," *Compton's Pictured Encyclopedia*, 2 : 710–716.
10. "The Men Who Discovered Electricity's Secrets," *ibid.*, 3 : 1117–1122.

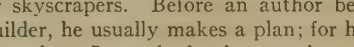
GENERAL REVIEW OF CONQUERING NATURE

READING HABITS

(To be read together by teacher and pupils)

An author goes about his work in much the same way as a builder of houses or skyscrapers. Before an author begins to write, like a successful builder, he usually makes a plan; for he, too, is a builder, a builder of thought. Instead of using wood, stone, and concrete for materials, he employs words and sentences and paragraphs in which to express his ideas. In order that his thought may be clear, he must arrange his ideas in an orderly manner; he must follow a plan.

The plans followed by authors are of a few easily recognized types. In writing stories and narratives they usually follow the time order of the events described. The plan, or structure, of the selection in this case is very much like a chain, each of the important incidents or episodes forming a link in the chain. Such a plan may be represented like this:



In the story "Turkey Red," for example, the four main episodes, or links, which make up the story, or the chain, are: first, the ride across the plain; second, the struggle with the blizzard; third, the fight to save the baby; fourth, the promise of the railroad.

Another plan authors frequently follow is to begin with a general statement, or a general description, and then follow with a number of

examples which prove or illustrate the general statement. This plan or structure may be pictured as a hand.

An example of this plan is "New Marvels of Chemistry in Every Day Life," p. 93. In this article the author devotes the first three paragraphs to a general statement about the ingenuity of chemists and the endless variety of substances they furnish us; this part of the article is represented in the diagram by the palm of the hand. The author devotes the remainder of the selection to illustrating or proving the ingenuity of chemists by describing the marvels which they have brought about; this part of the selection is shown in the diagram by the fingers.

In reading there are few habits which are more helpful in enabling one to follow and understand an author's thought than the habit of finding and following his plan. In this way a reader is led to see the meaning of a selection as a whole and the relation of the various parts of the selection to one another.

There are a number of selections in "Conquering Nature" which are built on the chain plan or structure. Find one of these and name each link in the chain, as shown in the example on p. 98. This unit also contains a selection (in addition to "Critical Moments with Lions"), which is constructed on the general-statement-and-illustration or "hand" plan. Find this selection; write the general statement or statements, and name the illustrations. Bring to class at least one example of each of these plans of building or organizing thought; find these examples in a magazine or in one of your textbooks.

REVIEW QUESTIONS

1. Explain the meaning of "conquering nature." Find a paragraph in this unit which in your opinion gives the best brief explanation of conquering nature.
2. What is the difference between a "discovery" and an "invention"? Name five discoveries and five inventions.
3. Women were the earliest and greatest inventors. What proof for this statement can you find in this unit?
4. Which has been a greater aid to man — the wheel or the steam engine?
5. What in your opinion was the greatest accomplishment of early man? Give reasons for your choice.

6. In the long run does man conquer nature or does nature conquer man? Explain, with examples, whether nature must obey man's laws or whether man must obey nature's laws.

ROUNDING OUT THE MEANING OF CONQUERING NATURE

1. Explain how the quotation (p. 25) fits "Conquering Nature."
2. Bring a selection from the book you have been reading (see p. 28) which will fit into one of the sections in "Conquering Nature." Tell why you think it suitable for the section you name and read aloud the most interesting part.
3. Let a committee list forces of nature which man has not yet succeeded in harnessing effectively.
4. Let a committee collect and tabulate the votes of the class on the selections in "Conquering Nature," as follows:
   a. The selection I enjoyed most.
   b. The selection I disliked most.
   c. The selection which gave me the most information.
   d. The selection which led to the most interesting discussion.

   Arrange your report as follows, putting in each of the last four columns the number of votes which belongs in it.

TITLE OF SELECTION	ENJOYED MOST	DISLIKED MOST	MOST INFORMING	BEST DISCUSSION

5. Men have always needed food, clothing, shelter, and means of protection. Let a committee arrange in columns, as shown below, the discoveries and inventions which have helped man meet these needs. Draw a circle around the names of the discoveries and inventions which are described in "Conquering Nature" and write the title of the selection in which each discovery or invention is mentioned. Let one member of the committee take "food"; another "clothing"; a third "shelter";

and a fourth "means of protection." After working alone, let the committee meet, talk over details, and arrange the columns.

Give the report in relay, each pupil being responsible for one column. The table on the blackboard may be in this form:

Food		Clothing	
DISCOVERY OR INVENTION	SELECTION AND PAGE	DISCOVERY OR INVENTION	SELECTION AND PAGE
Discovery of food plants.	"The First Farmers," p. 57.		
Cultivation of plants.	"The First Farmers," p. 57. "What the Earliest Men did for Us," p. 74.		

Shelter		Means of Protection	
DISCOVERY OR INVENTION	SELECTION AND PAGE	DISCOVERY OR INVENTION	SELECTION AND PAGE

Let the chairman of the committee call on the pupils whose opinions differ notably from the opinions of the rest of the class to explain their votes.

TOPICS FOR REPORTS OR COMPOSITIONS

1. When I was Lost in the Woods.
2. Our Greatest Difficulty When Camping.
3. Why I Am a Boy Scout (or Camp-Fire Girl).
4. Pioncer Experiences Told by My Great-Grandfather.
5. My First Garden.
6. Fun on the Farm in Harvest Time.
7. How I Made a Pet of a Wild Animal.
8. A Harvest Song (or Story).
9. How to Make Fire Without Matches.
10. When Now is Then: a Story of the Future.

QUESTIONS FOR DEBATE

Resolved, That electricity plays a more important part in modern industry than steam.

Resolved, That the domestication of plants has contributed more to the progress of man than has the domestication of animals.

UNIT TWO

MAKING AND BUILDING

"WE ARE ANTS UPON A MOUNTAIN, BUT WE'RE LEAVIN' OF OUR DENT, AN' OUR TEETH-MARKS BITIN' SCENERY, THEY WILL SHOW THE WAY WE WENT."

MAKING AND BUILDING

I raise a voice for far superber themes for poets and for art:
To exalt the present and the real,
To teach the average man the glory of his daily work and trade —
To manual work for each and all, to plough, hoe, dig,
To plant and tend the tree, the berry, vegetables, flowers,
For every man to see to it that he really do something, for every woman too;
I say I bring the Muse to-day and here,
All occupations, duties, broad and close,
Toil, healthy toil, and sweat.

—WALT WHITMAN.

THE BUILDER

The earliest men had no tools, no spears or knives, no bows and arrows, no sheep or horses or cattle. They had nothing to depend on but themselves and what nature gave them for food, clothing, and shelter. They did not know how to weave cloth, cook food, raise crops, or build fires. They lived in trees and caves, and ate the wild berries and seeds which they could find, and the small animals which they could catch with their hands.

Since that far-away time of helplessness, man has reached a position of power. Now the four corners of the earth minister to his wants, and the very forces of nature of which he used to be so fearful are his servants. This advance has been due largely to his skill as an inventor and a builder. From small beginnings like the stone hatchet, his inventions have grown until now his tools are of the finest steel; his factories hum with machinery of all kinds; while the steam engine and the electric dynamo run his mills and move his trains. Man has realized these triumphs only through constant struggle and by overcoming great difficulties.

Few who carry watches, cross bridges, use telephones, and ride in automobiles or elevators, know how these inventions came to be, or how they work. Few have knowledge of the men who created them, or of the victories by which they were won. And yet the stories and poems that deal with these themes are as full of romance and wonder as are the tales of knights and ladies and castles in the brave days of old.

II. MAKING AND BUILDING

A. Inventions of Early Men

		PAGE
1. The First Bow and Arrow	*Stanley Waterloo*	110
2. Tubal Cain	*Charles Mackay*	116
3. The First Potter	*Hanford M. Burr*	119

B. Inventions of Modern Men

1. The Thinker	*Berton Braley*	124
2. The Emancipator of the Farmer	*John Thompson Faris*	126
3. The Conquest of the Air	*Harold T. Pulsifer*	127
4. The Skyscraper	*Ray Stannard Baker*	129

C. Making Things

1. Alone on an Island	*Daniel Defoe*	135
2. Pete of the Steel-Mills	*Herschel S. Hall*	142
3. Manufacturing Automobiles	*Burton J. Hendrick*	153

D. The Makers and the Builders

1. The Village Blacksmith	*Henry Wadsworth Longfellow*	160
2. I Hear America Singing	*Walt Whitman*	162
3. Work Gangs	*Carl Sandburg*	162
4. The Song of the World	*Isabel Bowman Finley*	163
5. The Builder	*Glenn Ward Dresbach*	165
6. A Builder's Lesson	*John Boyle O'Reilly*	166

CHOOSE A BOOK

(Secure the book which promises to be most interesting and read it at home during the period given to the study of this unit.)

1. Braley, Berton, *Songs of the Workaday World.* Doran.

   A volume of vigorous poems about work and workers on land and sea, their tasks, their travels, their romances.

2. Caldwell, Otis W., and Slosson, Edwin E., *Science Remaking the World.* Doubleday.

   The story of the development of modern science told in clear, untechnical language by two well-known scientists.

3. Carnegie, Andrew, *The Autobiography of Andrew Carnegie.* Houghton.

   The autobiography of a poor Scotch boy who came to America and, by shrewdness and hard work, rose from the position of bobbin-boy at a dollar and a quarter a week to the leadership of the steel industry and the possession of an enormous fortune. How he gained this fortune and how he then gave the great bulk of it away for the benefit of mankind are told in this story of his life.

4. Casson, Herbert N., *The Romance of Steel.* Barnes.

   A history of the steel industry with many stories about the makers of iron and steel. *The Romance of the Reaper* (Doubleday) and *Cyrus Hall McCormick, His Life and Work* (McClurg), by the same author, contain the story of the invention which has relieved the farmer of his heaviest toil.

5. Darrow, Floyd Lavern, *Masters of Science and Invention.* Harcourt.

   Short sketches of some fifty scientists from Galileo to Einstein, containing information both interesting and useful. *The Boy's Own Book of Great Inventions* (Macmillan), by the same author, describes such epoch-making inventions as the telegraph, the telephone, the wireless, and the airplane.

6. Defoe, Daniel, *Robinson Crusoe.*

   The adventures, contrivances, and inventions of the hero make this one of the most fascinating stories in all literature.

7. Doolittle, James Rood (editor), *The Romance of the Automobile Industry.* Klebold Press (New York).

   The story of the development of the automobile. The volume contains many pictures.

8. Harrison, Henry Sydnor, *V. V.'s Eyes.* Houghton.
A novel depicting the life of the workers in a modern factory. The noble character of Dr. Vivian is an inspiring example of unselfish devotion to the welfare of others.

9. Howells, William Dean, *The Rise of Silas Lapham.* Houghton.
The story of a man who made a fortune in paint, began to build a magnificent mansion, ventured his funds in doubtful enterprises, and then ————. The centre of interest in the novel lies in the effect of events on the character of Lapham.

10. Iles, George, *Leading American Inventors.* Holt.
Brief biographies of twelve American inventors, including Robert Fulton, Eli Whitney, Samuel F. B. Morse, Charles Goodyear, John Ericsson, Cyrus H. McCormick, Elias Howe, and Ottmar Mergenthaler. The same author's *Flame, Electricity, and the Camera* (Doubleday) is full of valuable information on recent scientific progress.

11. Mason, Otis T., *The Origins of Invention.* Scribner.
The inventions of primitive peoples, including their tools, weapons, uses of fire, making of pottery, weaving of fabrics, and methods of travel and transportation.

12. Meadowcroft, William H., *The Boy's Life of Edison.* Harper.
A graphic life of America's greatest inventor, told with many anecdotes by his assistant.

13. Smith, J. Russell, *The Story of Iron and Steel.* Appleton.
Modern methods of mining, shipping, and smelting iron ore.

14. Tappan, Eva March, *Makers of Many Things.* Houghton.
This book tells in simple, untechnical language how matches, kid gloves, paper, books, fountain pens, pencils, dishes, cotton, and silk are made.

15. Thompson, Holland, *The Age of Invention.* (The Chronicles of America.) Yale University Press (New Haven).
The main achievements of such outstanding American inventors as Benjamin Franklin, Cyrus H. McCormick, Samuel F. B. Morse, Samuel Colt, Samuel P. Langley, and the Wright brothers told with many anecdotes.

16. Waterloo, Stanley, *The Story of Ab.* Doubleday.
The invention of the first bow and arrow, the great mammoth hunt, the slaying of the tiger Sabre Tooth, the wooing of Lightfoot, the discovery of the Fire Country, are a few of the incidents in this tale of Ab, the caveman.

A. INVENTIONS OF EARLY MEN

1. THE FIRST BOW AND ARROW

STANLEY WATERLOO

The bow and arrow is one of man's greatest inventions. This selection is an imaginative account of the way this weapon originated. Try to read the story in five minutes. Let all begin at the same moment. At the end of exactly two minutes (your teacher will give the signal) write down the word you are reading; then finish the story.

It chanced one afternoon that Ab, a young man of twenty, had returned early from the wood and was lying lazily upon the grass near the cave's entrance, while, not far away, Bark and the still chubby Beechleaf were rolling about. Bark was teasing the girl at times and then doing something to amuse or awe her. He had found a stiff length of twig and was engaged in idly bending the ends together and then letting them fly apart with a snap, meanwhile advancing toward and threatening the half-alarmed but wholly delighted Beechleaf.

Growing tired of this, at last, Bark, with no particular intention, drew forth from the pouch in his skin cloak a string of sinew, and bending the strong twig, tied the cord to each end, thus by accident producing a small bow. He found that the string twanged joyously, and, to the delight of Beechleaf, he kept twanging it for some time. Then he

picked from the ground a long, slender pencil of white wood, a sliver, perhaps, from the making of a spear-shaft, and began strumming with it upon the taut sinew string. This made a twang of a new sort, and again the boy and girl were temporarily interested.

But at last this amusement with the new toy became monotonous, too, and Bark ceased strumming and began a series of boyish experiments with his plaything. He put one end of the stick against the string and pushed it back until the other end would press against the inside of the twig; the result was a taut, new figure in wood and string which kept its form even when laid upon the ground. Bark made and unmade this a time or two, and then came disaster. He had drawn the little stick back nearly to the point where its head would come inside the bent twig and there fix itself, when the sliver slipped from his fingers.

The quiet of the afternoon was broken by a piercing childish yell. Ab leaped to his feet and ran to the youngsters in a moment. He saw the terrified Beechleaf stand, screaming, a fat arm outheld, from which dangled a little shaft of wood, which had pierced the flesh just deeply enough to give it hold. Bark stood looking at her, astonished and alarmed.

Understanding nothing of the circumstances, and supposing his sister's hurt came from Bark's careless flinging of sticks toward her, Ab started toward his brother to give one of those buffets which were so easy to give or get among cave children. But Bark darted behind a convenient tree, and there shrieked out his innocence of any harmful intention. He told of the queer plaything he had made, and offered to show how all had happened.

Ab was doubtful but laughing now, for the little shaft, which had scarcely pierced the skin of Beechleaf's arm, had fallen to the ground, and her fright had given way to a demand that Bark be hit with something. But Ab allowed the lad to give his proof, and Bark, taking his toy, proceeded to show how Beechleaf had been injured.

But he was the most unfortunate of youths for he succeeded only too well. The mimic arrow flew again, and the sound that rang out now was not the cry of a child. It was the yell of a great youth, who felt a sudden and sharp pain, and who was not maintaining any dignity. Had Bark been as sure of hand and certain of aim as any archer who lived in later centuries, he could not have sent an arrow more fairly to its mark than he sent the sliver into the chest of his big brother. For a second Bark stood with staring eyes, then dropped his toy, and with a howl fled into the forest.

Ab's first impulse was to pursue his brother, but after the first leap, he checked himself and paused to pluck away the stick, which, so light was the force that had impelled it, had not gone deeply in. He knew now that Bark was really blameless, and picking up the abandoned plaything began to examine it thoughtfully and curiously.

His instinct toward experiment showed itself as usual and, putting the splinter against the string, he drew it back and let it fly as he had seen Bark do — that promising youngster being now engaged in peering from the wood and trying to decide whether or not a return was yet safe. Ab learned that the force of the bent twig would throw the sliver farther than he could toss it with his hand, and he wondered what would follow were something like this plaything, which Bark had stumbled upon, to be made and tried on a greater scale. "I'll make one like it, only bigger," he said to himself.

The next day Ab hacked from a low-limbed tree a branch as thick as his finger, and about a yard in length, and after trimming it, bent it as Bark had bent the twig, and tied a strong sinew cord across. It was a creditable bow, considering the fact that it was the first ever made, even though one end was smaller than the other. Then Ab cut a straight willow twig, as long nearly as the bow, and began repeating the experiments of the day before. Never was man more astonished than this youth after he had drawn the twig back nearly to its head and let it go!

So drawn, the shaft flew faster and farther than the maker had imagined could be possible. He had a long search for the headless arrow; when he found it he went where were bare open stretches, that he might see always where it fell. Once as he sent it from the string the shaft struck fairly against an oak and, pointless though it was, forced itself deeply into the hard brown bark and hung there quivering. Then came to the youth a flash of thought which had its effect upon the ages: "What if there had been a point to the flying thing, and it had struck a reindeer!"

Ab pulled the shaft from the tree and stood pondering for a moment or two, then suddenly started on a run toward the cave. He must see Old Mok.

The old man was at work and alone; the young man told him, somewhat excitedly, why he had come in such haste. Mok listened with some patience but with a grin upon his face. He had heard young men tell of great ideas before, of a new and better way of fishing, or of making deadfalls for wild beasts. But he finally yielded to Ab's earnest demand that he should hobble out and see with his own eyes how the strung bow would send the shaft.

The two men went to an open space, and Ab showed his old friend what the bow would do. With the second shot there came a light into the eyes of the veteran hunter, and he bade Ab run to the cave and bring his favorite spear. The young man was back in a moment. When he burst into the open, he found Mok standing a long spear's cast from the greatest of the trees which stood near.

"Throw your spear at the tree," said Mok. "Throw as hard as you can."

Ab hurled the spear with all his strength, but the distance was overmuch for spear-throwing, and the flint point pierced the wood so lightly that the weight of the long shaft made it sink slowly to the ground and pulled away the head. A wild beast struck by the spear at such a distance would have been pricked, but not seriously hurt.

"Now take the plaything," said Mok, "and throw the little shaft at the tree with that."

Ab did as he was told, and, poor marksman with his new device, missed the big tree repeatedly. But when, at last, the bolt struck the hard trunk fairly, there was a sound which told of the sharpness of the blow, and the headless shaft rebounded for yards. Old Mok looked upon it delightedly.

"It may be there is something to your plaything," he said to the young man. "We shall make a better one. But your shaft is good for nothing. We shall make a straighter and stronger one, and upon the end of it we shall put a little spearhead; then we can tell how deeply it will go into the wood."

For days the two labored earnestly together. When they came again into the open they bore a stronger bow, and one far more flexible than the one they had tried before. And the shaft was straight and bore a small spearhead at its end. The thought of notching the shaft to fit the string came naturally. The bow had its first arrow.

An old man is not so easily excited as a young one nor so hopeful, but when the second test was done Old Mok was the wilder and more delighted of the two. He saw it all! No longer could the spear be counted as the weapon with which to do most grievous hurt at a safe distance from whatever might be dangerous. With the better bow and straighter shaft Ab's marksmanship improved, until even this unskilled archer could hit at a distance of a double spear's cast the trunk of the huge tree. And the arrow whistled as if it were a living thing, while the flint head was buried so deeply in the wood that both Mok and Ab knew that they had found something better than any weapon the cavemen had ever known!

There followed many days of eager working by the old man and the young one, and much testing of the new device. Finally, one morning, Ab issued forth from the cave armed with his ax and knife, but without his spear. He bore, instead, a bow which was the best and strongest the two had

yet learned to fashion, and a sheaf of arrows slung behind his back. The bow and the arrows were crude, and the archer was not yet a certain marksman, but the bow was stiff, the arrows had keen heads of flint, and the arms of the hunter were strong.

After an eager search for game, late in the afternoon the youth came upon a slight descent along the foot of which ran a shallow creek. Beyond the creek was a little grass-grown valley, in which were feeding a fine herd of deer, moving in the direction of the creek. As the wind blew toward the hunter, no hint of danger was carried to them on the breeze. Concealing himself among the bushes on the little height Ab waited.

As the deer neared the creek, they grouped themselves about the greenest and richest feeding-places. When they reached the very border of the stream, they gathered in a bunch of half a hundred, close together, just beyond a spear's cast from the watcher. But this was a test, not of the spear but of the bow, and the most inexperienced of archers, shooting from the place where Ab was hidden, must strike some one of the beasts in that broad herd.

Ab sprang to his feet and drew his arrow to the head. The deer gathered for a second in affright, crowding each other before they burst wildly away. Then the bow-string twanged, the arrow sang hungrily, there was the swift thud of hundreds of feet, and the little glade was almost silent. But it was not quite silent, for, floundering in its death struggles, was a single deer, through which had passed an arrow so fiercely driven that the flint head projected from the opposite side.

Half wild with triumph was the youth who bore home the arrow-stricken game. But he was not much more delighted than was the old man, who heard the story of the hunt, and who recognized far more clearly than the youth the quality of the new weapon which they had invented. But the lips of each of the two makers of the bow were sealed for the time. Ab and Old Mok cherished together their mighty secret.

CLASS ACTIVITIES

1. Tell the story of the first bow and arrow.
2. Explain why the bow and arrow is regarded as a marvellous invention. Which required greater ability — the making of the bow or the arrow?
3. By the invention of the steam-engine man made heat work; he harnessed a natural force. Tell whether the invention of the bow was also the harnessing of a natural force.
4. Explain how the bow and arrow resemble the sling-shot. Which was probably the earlier invention? Why do you think so?
5. Why was Old Mok sceptical at first over Ab's discovery? Why was he more excited than Ab when he found what the new plaything could do?
6. Make up a story, in the style of "The First Bow and Arrow," telling why Ab and Old Mok kept the secret of their invention, or telling what happened as a result of their invention.
7. Tell of inventions you have made in your play. Did you ever invent a secret language or a secret method of writing? Find examples of such inventions in Mark Twain's *Huckleberry Finn*, or *Tom Sawyer*, or in Booth Tarkington's *Penrod*, or *Penrod and Sam*.
8. Reading rate: Count the number of words you had read when the two-minute signal was given. What is your rate of silent reading by the minute? How long did it take you to read the entire story? Keep your reading rate for comparison later in the year.

2. TUBAL CAIN

CHARLES MACKAY

Old Tubal Cain was a man of might,
  In the days when earth was young;
By the fierce red light of his furnace bright,
  The strokes of his hammer rung;
And he lifted high his brawny hand
  On the iron glowing clear,
Till the sparks rushed out in scarlet showers,
  As he fashioned sword and spear.

And he sang: "Hurrah for my handiwork!
Hurrah for the spear and the sword!
Hurrah for the hand that shall wield them well,
For he shall be king and lord!"

To Tubal Cain came many a one,
As he wrought by his roaring fire
And each one prayed for a strong steel blade
As the crown of his desire;
And he made them weapons sharp and strong,
Till they shouted loud for glee,
And gave him gifts of pearl and gold,
And spoils of the forest free.
And they said, "Hurrah for Tubal Cain,
Who hath given us strength anew!
Hurrah for the smith, hurrah for the fire,
And hurrah for the metal true!"

But a sudden change came o'er his heart
Ere the setting of the sun,
And Tubal Cain was filled with pain
For the evil he had done;
He saw that men with rage and hate
Made war upon their kind,
That the land was red with the blood they shed
In their lust for carnage blind.
And he said, "Alas that ever I made,
Or that skill of mine should plan,
The spear and the sword for men whose joy
Is to slay their fellow man!"

And for many a day old Tubal Cain
Sat brooding o'er his woe;
And his hand forbore to smite the ore,
And his furnace smoldered low.

But he rose at last with a cheerful face
And a bright courageous eye,
And bared his strong right arm for work,
While the quick flames mounted high;
And he sang, "Hurrah for my handiwork!"
And the red sparks lit the air;
"Not alone for the blade was the bright steel made," —
And he fashioned the first plowshare.

And men, taught wisdom from the past,
In friendship joined their hands,
Hung the sword in the hall, the spear on the wall,
And plowed the willing lands;
And sung: "Hurrah for Tubal Cain!
Our stanch good friend is he;
And for the plowshare and the plow
To him our praise shall be.
But while oppression lifts its head,
Or a tyrant would be lord,
Though we may thank him for the plow,
We'll not forget the sword!"

CLASS ACTIVITIES

1. Tell whether the poet omits any important reasons why early men wished sharp, strong weapons.
2. What made Tubal Cain sad? What restored his cheer and courage?
3. Which inventions came first — the sword or the plowshare, weapons for fighting or tools for working? Give reasons for your opinion. Name any of the preceding selections which help you answer this question.
4. Explain the last stanza. Do the first three lines give a true picture of the world to-day?
5. Have three pupils read this poem before the class. Discuss the differences in the meaning brought out by the various readers, and decide which method of reading is best.

3. THE FIRST POTTER

HANFORD M. BURR

Less interesting and dramatic, perhaps, than the invention of weapons but more useful for man's welfare were such inventions for domestic use as dishes, vases, and crockery seen nowadays in every home. There was a time, of course, when these utensils were entirely unknown. In this story we have an imaginative account of the way in which they came into existence.

The greatest discovery of Oma, the wife of Ang, the caveman, was the art of making pottery dishes out of clay and baking them before the fire. For a long time women had made baskets of reeds and willow twigs in which they could carry dry foods, but the problem was to get something in which they could carry liquids. Sometimes they used skin bottles, but the bottles soon leaked and the water rotted them out. Then some clever woman smeared the inside of a closely-woven basket with pitch. Another lined her baskets with clay and baked them in the sun, but water would soon soften the clay. Then came Oma and the fire and the art of baking clay.

Oma had been lining some baskets with clay, and little Om, her son, tried to imitate her. Since it was cold, he sat as near to the fire as he could. After he had finished a little basket, he would put it on a stone near the fire until he had a row of them. When the wind changed suddenly and blew the fire towards him, he had to move quickly, leaving his clay baskets on the rock. He called to his mother to get them, but she had no notion of getting burned for so small a cause and she was too busy to bother.

That night after Om had gone to sleep she sat by the fire with Ang, her husband, and her eyes spied the little row of clay baskets. She picked one up to show the father what a clever boy his son was getting to be. As she touched the clay, she found it dry and hard as no clay she had ever

touched before. Some of the baskets were dry and crumbly, but two or three in the centre were as hard as stone. She ran to the brook and filled the hardest baskets with water and brought them back to the fire. They did not soften or leak. Then she put them on a flat stone and pushed them almost into the fire. Soon the water in them began to bubble and steam.

"Look!" cried Oma. "At the touch of the Red One a little Cloud Spirit goes up to the great Cloud Spirits that fly in the blue above us."

Then Ang knew that Odin had given a new gift. "This time the Red One has spoken to you; what has he said?"

Oma carefully drew the little clay pots from the fire, and after they had cooled she examined them. Two of them were cracked, but one was as firm and solid as if it had been cut from stone. She held it up before Ang in triumph. "This is what we have been waiting for since the beginning of time. The Red One has worked magic on the clay, and its old enemy, the water, cannot eat through it."

The next day Oma made baskets lined with clay, and then, putting them on flat stones, pushed them into the heat of the fire. Some of them crumbled, but others baked hard and firm. As the heat burned off the inclosing basket, the pattern was left molded on the clay.

After many experiments Oma learned just what clay to use and how to bake it. And she made pots of all sizes and arranged them on ledges of her cave and filled them with nuts and seeds. Then she learned how to use the clay pots for cooking. In the old days she had placed scraps of meat and bone and roots in a pitch-lined basket and then added water and hot stones from the fire. Of course the pitch softened and gave an unpleasant taste to the stew, and often the hot water softened the basket so much that it became like a sieve. But now Oma could mix her stews and brews and boil them until they were soft and delicious, and the clay dish was just as good as before.

When Suta and other women came to look, they wondered and tasted, smacked their lips, asked how it was done, and then went home to do likewise. And the fame of Ang and Oma grew in the north land, and men said, "They are loved by the Great One."

But if Oma made the first pottery and the most useful, Suta, the wife of Wang, made the most beautiful. After she had learned to bake the clay so that neither fire nor water would harm it, she amused herself by making dishes of queer shapes. Then she discovered it was not necessary to make the basket moulds, and that if she made marks on the clay they would be baked in. She began by making a little row of nail prints about the rim—((((((((((. Then with a sharpened stick she made rough pictures of animals and men. And the fame of Suta went out also through the north land, and people came from far away to see the wonderful things which she had done. Others tried, but no one could make such beautiful dishes as Suta.

Before the great fire feast an idea came to Suta like a dream in the night, she knew not from whence. She would make a great bowl for Odin and she would mould on it pictures of his gifts, so that all who saw would remember from whom the good things came. With great care she shaped a bowl as high as a five-year-old child, and so large that a grown man could not circle it with his arms. On it she pictured the man who shot the first deer with a stone-tipped arrow, the man who made the first snare for the wild birds, the man who first crossed the deep water in a hollowed log, Ang striking fire from the flints, Oma baking the clay dishes. Then she hesitated. These and many things more the Great One had given; what would He give next? What did she want most?

Now Suta was not like Ang or Wang or even like Oma. Wang had thought sometimes that she was not so good a cook as Oma, and that she spent too much time listening to the song of the birds and watching the play of the light on

the water and the woods and the far-off hills. She did these things sometimes when he thought she ought to get wood for the fire or cook something for him; at such times he grumbled a little. But now that she made dishes of clay which no one else could make and all men said: "What a fortunate man Wang is to have such a wife!" Wang began to be very proud of her. He even went so far as to get wood for the fire, a task which he did not think man's work.

But what did Suta the dreamer want? She did not want more food, or more clothes, or a bigger cave; she wanted the power to mould in clay the things she saw and loved. So she put on the great bowl for the All-Father a picture of a woman, with her back turned on the lookers and a sharpened stick in her hand, just ready to work the soft clay, but waiting for the power to draw on clay the picture in her mind. It was the first expression of the yearning of the artist for beauty and the power to express it. For Suta was the mother of those who love the beautiful and long to give it permanent form.

—*Adapted.*

CLASS ACTIVITIES

1. Tell the story of the first potter.
2. Was the discovery of the art of making pottery, according to the story, the result of an accident? Explain. In this respect does it resemble "The First Bow and Arrow"?
3. Explain: Odin, Red One, Cloud Spirit, Great One.
4. Describe the six pictures which Suta moulded on the great bowl for Odin. Name the preceding selections in this book which describe or mention the events she pictures. Which of these events have not previously been mentioned?
5. Explain: Suta longed to give beauty permanent form. Did she succeed? Name ways in which you try to give beauty to your work. Give four examples, each in a different line of work or endeavor, showing how artists, writers, and builders have given beauty permanent form.
6. Explain whether Suta and Big Ivan (see "The Citizen," *Book One*, p. 314) were dreamers of the same sort. Read the passages in each story which support your opinion.

7. Question for informal debate (speeches to be limited to two minutes each). Did Suta or Oma make the greater contribution to man's happiness?

CLASS-LIBRARY READINGS

INVENTIONS OF EARLY MEN

1. "The Story in a Rifle," *Wonder Book of Knowledge*, 75–96.
2. "The Forge," *Stories of Useful Inventions*, 38–53.
3. "The Needle," *ibid.*, 125–136.
4. "The Gun," *ibid.*, 137–146.
5. "Inventions That Have Changed the World," *Compton's Pictured Encyclopedia*, 4 : 1795–1802.
6. "The Potter and His Clay," *ibid.*, 7 : 2903–2907.
7. "When All Man's Tools Were Made of Stone," *ibid.*, 8 : 3360–3361.
8. "The China on the Table," *Book of Knowledge*, 14 : 4447–4485.

B. INVENTIONS OF MODERN MEN

1. THE THINKER

BERTON BRALEY

The main idea in this poem is repeated in each stanza. Read the poem twice and be prepared to point out the lines in each stanza which best express this idea.

Back of the beating hammer
  By which the steel is wrought,
Back of the workshop's clamor
  The seeker may find the thought;
The thought that is ever master
  Of iron and steam and steel,
That rises above disaster
  And tramples it under heel!

The drudge may fret and tinker,
  Or labor with lusty blows,
But back of him stands the thinker,
  The clear-eyed man who knows;
For into each plow or sabre,
  Each piece and part and whole
Must go the brains of labor
  Which gives the work a soul!

Back of the motor's humming,
Back of the belts that sing,
Back of the hammer's drumming,
Back of the cranes that swing,
There is the eye which scans them,
Watching through stress and strain,
There is the mind which plans them —
Back of the brawn, the brain!

Might of the roaring boiler,
Force of the engine's thrust,
Strength of the sweating toiler,
Greatly in these we trust.
But back of them stands the schemer,
The thinker who drives things through;
Back of the job — the dreamer,
Who's making the dream come true!

CLASS ACTIVITIES

1. Read the lines in each stanza which best express the main idea in the poem.
2. How is thought the master of iron and steam and steel? Give illustrations.
3. What implements mentioned in this poem have you seen?
4. Name the different kinds of thinkers and workers mentioned in the poem.
5. Name selections which you have read in this book, or elsewhere, which may be regarded as summed up in this poem.
6. Why is "brain work" usually paid a higher wage than "brawn work"?
7. Is "the dreamer" referred to in the last two lines in the poem the same sort of person as was Suta in "The First Potter," p. 119? Is he the same sort as was Big Ivan in "The Citizen" (see *Book One*, p. 314)?
8. Explain the difference between a visionary person and a person with a vision. Which was Suta? The boy in "What Will Power Did for Me" (*Book One*, p. 132)? "The dreamer" in Braley's poem?
9. Tell about one of your dreams which you made come true.

MARVELOUS INVENTIONS

The next three selections tell of three inventions: the reaper, the airplane, and the skyscraper. Read these selections thoughtfully and then write the names of the inventions in the order of their value to mankind.

2. THE EMANCIPATOR OF THE FARMER

JOHN THOMPSON FARIS

The year Cyrus McCormick was born, his father began to build a reaping machine which he hoped would revolutionize the world's harvesting methods. For a number of years the work was continued. Thus it happened that one of the earliest memories of the boy, Cyrus, was the talk about the mysterious reaper. He saw the curious machine grow under his father's hands, and he must have seen the trial of the completed implement when he was seven years old.

To Mr. McCormick's disappointment the reaper was a failure. It would cut the wheat when the grain was in perfect condition, but was useless if the grain was the least bit matted or beaten down by wind or rain. Discouraged, the inventor left the machine to rust.

Cyrus could not keep away from the discarded reaper. His father's dream took possession of him. Why could he not show the American farmer how to reap grain with horses? His father, noting his purpose, urged him to give up all thought of spending time on the problem which had already cost so much.

But the boy was not to be turned from his purpose. He had a vision of what a reaper would mean to the world; already he saw weak points in his father's work and thought of ways to remedy them. So he said to himself, "I will!" Then, for weeks and months and years he continued his experiments, refusing to be daunted by obstacles, encouraging himself always with the dream of triumph he was sure would come.

Profiting by the work of his father, he began his task, and, after years of experimenting, completed his machine. It was a strange-looking affair, with its wooden cogwheels and its rough castings and forgings, all his own handiwork, but in it were the essential principles of the reaper as it is to-day.

By this time the interest of his parents was very keen. The father often worked at the shop with Cyrus until late at night. When the reaper was tested in the home fields, the mother would ride out on horseback to watch the performances of the creation of her boy's brain and hands.

A public exhibition was given to about a hundred curious neighbors. Casson, in *The Romance of the Reaper*, says:

It was in the fall of 1831 that Cyrus McCormick hitched four horses to his unwieldy machine and clattered out of the barn-yard into a field of wheat near by. Horses shied and pranced at the absurd object, which was unlike anything else on the face of the earth. Small boys yelled. Farmers, whose backs were bent and whose fingers were scarred from the harvest labor, gazed with contemptuous curiosity at the queer contraption which was expected to cut grain without hands. A noisy crowd of white laborers followed the reaper up and down the field with boisterous enmity; for here was an invention which threatened to deprive them of the right to work — the right to work sixteen hours a day for three cents an hour.

That afternoon six acres of wheat were successfully reaped, ordinarily the work of six men. "Your reaper is a success," Cyrus's father said to him, "and it makes me feel proud to have a son do what I could not do."

3. THE CONQUEST OF THE AIR

HAROLD T. PULSIFER

The first heavier-than-air machine to fly by its own power was the invention of Samuel P. Langley. This machine, which made its first successful flight in 1896, was driven by a steam-engine. It carried no passenger. The chief credit for the development of the airplane of to-day, which is driven by a gas-engine, belongs to Wilbur and Orville

Wright. Profiting by the studies and experiments of Langley, these two brothers, after years of effort, built a machine which in 1903 made a successful flight of 852 feet.

The airplane has since been so perfected that a non-stop flight was made across the Atlantic in 1919, and a flight around the world was undertaken in 1924 In this poem, the author pictures the glory of this late conquest by man.

With a thunder-driven heart
And the shimmer of new wings,
I, a worm that was, upstart,
King of kings!

I have heard the singing stars,
I have watched the sunset die,
As I burst the lucent bars
Of the sky.

Lo, the argosies of Spain,
As they plowed the naked brine,
Found no heaven-girded main
Like to mine.

Soaring from the clinging sod,
First and foremost of my race,
I have met the hosts of God
Face to face:

Met the tempest and the gale
Where the white moon-riven cloud
Wrapped the splendor of my sail
In a shroud.

Where the ghost of winter fled
Swift I followed with the snow,
Like a silver arrow sped
From a bow.

I have trailed the summer south,
  Like a flash of burnished gold,
When she fled the hungry mouth
    Of the cold.

I have dogged the ranging sun
  Till the world became a scroll;
All the oceans, one by one,
    Were my goal.

Other wingèd men may come,
  Pierce the heavens, chart the sky,
Sound an echo to my drum
    Ere I die.

I alone have seen the earth,
  Age-old fetters swept aside,
In the glory of new birth —
    Deified!

4. THE SKYSCRAPER

RAY STANNARD BAKER

"A steel bridge standing on end, with passenger cars running up and down within it."

This is the definition of a "skyscraper" given by an architect who is as famous for his speech as he is for his tall buildings.

It seems odd to speak of any building as an invention, since there have been buildings almost as long as there have been men; and yet the very fact — and curious enough it is when you come to think of it — that the skyscraper is truly more a bridge than a building, and that cars do actually run on perpendicular tracks within it, makes it one of the very greatest feats of the inventor.

For thousands of years every large building in the world

was constructed with enormous walls of masonry to hold up the inner framework of floors and partitions. It was a substantial and worthy method of construction, and there seemed no need of changing it. But one day a daring builder astonished the world by reversing this order of construction, and building an inner framework strong enough to hold up the outside walls of masonry. The invention was instantly successful. In 1880 there was not a "skyscraper" in the world; to-day there are scores of them in American cities, the heights varying from seven stories up to sixty, making them by all odds the greatest structures reared by the hand of man.

Every invention has its reason for being. Unless it is needed, it does not appear. So with the skyscraper. Great cities had grown with a rapidity unknown anywhere in the world; business centres were much overcrowded. Property owners said: We can't spread out, so we must go up. In New York single acres were worth millions of dollars. Land of this value covered with buildings of ordinary height could not be made to pay. Moreover, engineering and the various processes of steel construction had been advancing at great strides; steel was comparatively cheap, and a light skeleton framework cost less in the beginning and required less room than immense masonry walls. And, lastly, and by no means of least importance, the modern elevator had been invented.

I remember talking once with a grizzle-headed elevator man in what is now an old skyscraper. He had evidently done some quiet thinking as he travelled up and down, year after year, on his perpendicular railroad.

"Did you ever think," he asked, "that skyscrapers would be an impossibility without elevators? It's a fact. Nothing above seven or eight stories without 'em. You'd never catch any business man climbing eight flights to his office."

And yet if the elevator has made the skyscraper a possibility, the skyscraper has in no less degree developed the elevator; both have gone up together, and both would seem to have approached very near to perfection.

The building of a modern skyscraper is a mighty task, full of difficult problems, more difficult even than those connected with a great steamship, a great bridge, or even a railroad line. Knowing how far the building is going up, the architect must determine from the character of the ground on which it is to stand how far it must go down. In New York many of the greatest buildings have foundations so deep that they rest on the solid rock, seventy-five feet below the surface, and there are two or three stories beneath the street, as well as forty or fifty above. In Chicago all of the great buildings rest on what may reasonably be called flat-boats. Indeed, Chicago is a floating city — floating on a bed of soft sand and mud. These boats are made of great timbers, driven straight down, or else of steel rails or steel girders laid criss-cross and filled in with cement until they form a great, solid slab of iron and stone. And as might be expected, these boats frequently tip a little to one side, so that many of the greatest skyscrapers are slightly out of plumb, like modern towers of Pisa, although they do not lean enough to be at all dangerous.

All great buildings are expected to settle, and the main effort is to make this settlement uniform throughout. In New York the tall buildings which rest on a foundation of fine wet sand have all settled from one-quarter to nine-sixteenths of an inch. The Marquette Building, Chicago, and the St. Paul Building, New York, have provisions made at the bases of their columns for lifting them up with powerful hydraulic presses and inserting packing of steel should they settle too much.

Thus it will be seen how difficult and delicate a problem the builder must meet in securing a solid foundation for the end of his bridge which goes into the ground. He must know, not only just how much the entire building will weigh, almost to the ton, but he must know the weight of each part of it, so that the load may be equally distributed over the foundation, thereby preventing any tendency to tip over. He must also compute the "live" weight which his building is expected

to carry, that is, the furniture, the safes, the tenants themselves.

Moreover, he must determine exactly how much strain each steel girder, each column, even each rivet will bear. If he overloads any single girder, he endangers his whole building. Then he must calculate how much wind is going to blow against his building, and from what direction most of it is coming; he must even calculate on the pounding of horses' hoofs and heavy wagons on the pavement outside; he must make provisions for supplying water to the top stories, where the city cannot pump it; he must provide amply against possible fires — and that is one of the most difficult of all the problems; he must see to the prevention of rust in his steel work; he must secure proper ventilation and lighting, so that every room has its windows with a street front if possible; and, more difficult than all else, he must keep well within the limits of the city's building laws. These are only a few of thousands of intricate details, not to consider the tremendous question of cost with which he must grapple.

— *Adapted.*

CLASS ACTIVITIES

Before trying to answer these questions, read again the three selections.

1. Which of the three inventions seems to have required the longest and most patient experimenting?
2. Which of these inventions has affected the greatest number of people? Which has affected the smallest number?
3. Which invention represents a victory over the greatest obstacles?
4. *Volunteer project.* Which invention brought the inventor the largest fortune? (To answer this question you will need to look up the inventors or the inventions in the encyclopedia or in some of the references given on p. 134.
5. Had the reaper not been invented, the great Northwest would probably still be an unsettled wilderness. Explain.
6. Were it not for the reaper, a loaf of bread would probably cost three times its present price. Why?
7. How does the invention of the reaper compare in importance with the invention of the automobile?

8. Tell how the reaper was "The Emancipator of the Farmer." What is an "emancipator"?
9. Make a list of six or eight questions which need to be answered in order to understand fully the poem, "The Conquest of the Air."
10. A poet usually uses figures of speech — likenesses, comparisons, pictures — to explain his thought. In the first stanza of "The Conquest of the Air," for example, Pulsifer compares the engine in an airplane to a "heart," the sound of the motor to "thunder," and the aviator to a "worm" which has just come from its chrysalis with "new wings" and has thus become "King of Kings." One mark of a good poem is the beauty and appropriateness of the figures of speech it contains. Tell whether the figures of speech in the first stanza are beautiful and fitting. Read the poem again and make a list of the figures of speech which you like.
11. Explain the chief change which would take place in cities if it were impossible to build skyscrapers. What problems would be increased by such a change? What ones would be lessened?
12. Explain why skyscrapers would be impossible without elevators.
13. *Talks by volunteers.* Tell about the most interesting skyscraper you have ever seen; the appearance of the building, its size, height, use, and the number of people it accommodates. Illustrate your talk with pictures of both the exterior and the interior. Perhaps you can bring for comparison pictures (postals or magazine cuts) of other large skyscrapers.
14. What is the most difficult problem of the builder of a skyscraper?
15. Why are skyscrapers prohibited in Paris? Is the height of buildings limited in your community? Should it be limited? Give reasons.
16. Read again "The Thinker," p. 124. Explain how its main idea is illustrated by each of the three selections under discussion.
17. Write sentences in which you state the chief contribution to human welfare made by each of these inventions: reaper, airplane, skyscraper.

Judging the Value of Inventions

Let two pupils collect the votes of the class on the relative value to man of the three inventions (p. 126) and score the results as follows:

1. For a first place.....5 points
2. For a second place.....3 points
3. For a third place.....1 point

Report the result to the class and ask the pupils who disagreed with the class decision on the invention which deserves first place to give their reasons for their choice for first place. Keep a record of the class vote for later use.

ADDITIONAL READINGS. — 1. "Industry's Greatest Asset — Steel," W. J. Showalter, in *National Geographic Magazine*, 32 : 121–156. 2. "Foundations of Lofty Buildings," W. Skinner, in *Century Magazine*, 55 : 771–781. 3. "Wright Brothers," M. H. Wade, *Light Bringers*, 112–141. 4. "Manhattan," Walt Whitman. 5. "The Wright Brothers' Aeroplane," O. Wright and W. Wright, in C. L. Barstow's *Progress of a United People*, 125–134. 6. "When Reapers Were New," A. H. Sanford, *Story of Agriculture in the United States*, 144–158. 7. "Airships and Flying Machines," A. Williams, *How It Works*, 456–474. 8. "The Conquest of the Air," H. Thompson, *Age of Invention*, 220–245. 9. "Making the World's Agricultural Machinery," B. J. Hendrick, *Age of Big Business*, 149–169.

CLASS-LIBRARY READINGS

INVENTIONS OF MODERN MEN

1. "The Story of the Heavy-Gun Pointer," G. Flint, in *Vocational Reader*, 157–161.
2. "Eli Whitney, Inventor of the Cotton Gin," *Makers of Our History*, 123–134.
3. "Cyrus Hall McCormick, Inventor of the Reaper," *ibid.*, 254–265.
4. "The Story in the Talking Machine," *Wonder Book of Knowledge*, 43–49.
5. "The Story in Elevators and Escalators," *ibid.*, 232–241.
6. "The Reaper," *Stories of Useful Inventions*, 85–96.
7. "The Most Ingenious of Americans," *Compton's Pictured Encyclopedia*, 3 : 1083–1084.
8. "The Machines that Lift You Upstairs," *ibid.*, 3 : 1132–1134.
9. "Harnessing Explosions — the Story of the Gas Engine," *ibid.*, 4 : 1403–1406.
10. "How Cyrus McCormick Rode to Fame on a Reaper," *ibid.*, 5 : 2095.
11. "Six Principles that Rule All Machines," *ibid.*, 5 : 2187–2190.
12. "How the Phonograph Was Taught to Talk," *ibid.*, 7 : 2774–2776.
13. "Tools, the Builders of Civilization," *ibid.*, 8 : 3514–3516.
14. "The Story of Architecture," *World Book*, 1 : 322–320.
15. "American Inventors and Inventions," *Book of Knowledge*, 9 : 2667–2670.

C. *MAKING THINGS*

1. ALONE ON AN ISLAND

DANIEL DEFOE

Much of the fascination of the story of Robinson Crusoe lies in the ingenious way in which he made things to satisfy his wants. This selection describes many of his achievements. Read it through first in order to find the articles he made; read it again to find how he made these articles; then see if you can answer the questions at the end.

I now began to make such articles as I found I most wanted, particularly a chair and a table, for without these I was not able to enjoy the few comforts I had in the world; I could not write, or eat, or do several things with so much pleasure without a table, so I went to work. I had never handled a tool in my life; and yet in time, by labor, application, and contrivance, I found at last that I wanted nothing but I could have made, especially if I had had tools. I made abundance of things, even without tools; and some with no more tools than an adze and a hatchet, which perhaps were never made that way before.

For example, if I wanted a board, I had no other way but to cut down a tree, set it on an edge before me, and hew it flat on either side with an axe, till I had brought it to be as thin as a plank, and then dab it smooth with an adze. By this method, it is true, I could make but one board of a whole tree, but this I had no remedy for but patience; my time or

labor was little worth, and so it was as well employed one way as another.

Within doors, when it rained and I could not go out, I found employment, diverting myself with talking to my parrot, and teaching him to speak. I quickly taught him to know his own name and at last to speak it out pretty loud, "Poll." This was the first word I ever heard spoken on the island by any mouth but my own.

I had long studied how to make myself some earthen vessels, which indeed I wanted very much. Considering the heat of the climate I did not doubt that if I could find any clay, I might botch up some such pot as might, being dried in the sun, be hard and strong enough to bear handling, and to hold anything that was dry and required to be kept so.

It would make the reader pity me, or rather laugh at me, to tell how many awkward ways I took; what odd, misshapen, ugly things I made; how many of them fell in and how many fell out, the clay not being stiff enough to bear its own weight; how many were cracked by the over violent heat of the sun, being set out too hastily; how many fell in pieces when moved; and, in a word, how, after having labored hard to find the clay, to dig it, to temper it, to bring it home and work it, I could not make above two large earthen ugly things (I cannot call them jars) in about two months' labor.

However, as the sun baked these two very dry and hard, I lifted them gently, and set them down again in two great wicker baskets, which I had made on purpose for them, that they might not break. As between the pot and the basket there was a little room to spare, I stuffed it full of straw. These two pots I thought would hold my dry corn, and perhaps the meal, when the corn was bruised.

But all this would not answer my end, which was to get an earthen pot to hold liquids and bear the fire, which none of these could do. It happened some time after, making a pretty large fire for cooking my meat, when I went to put the fire out after I had done with it, I found a broken piece

of one of my earthenware vessels in the fire, burnt as hard as a stone, and as red as a tile. I was agreeably surprised and said to myself that certainly they might be made to burn whole if they would burn broken.

This set me to study how to build my fire so as to make it burn some pots. I had no notion of a kiln, such as potters use; but I placed three large jars and two or three pots in a pile, one upon another, and placed my firewood all around it with a great heap of embers under them. I piled the fire with fresh fuel around the outside and upon the top, till I saw the pots in the inside red-hot quite through, and observed that they did not crack at all.

I let them stand in that heat about five or six hours, till I found one of them (though it did not crack) begin to melt. So I slaked my fire gradually, till the pots began to lose the red color; and watching them all night, that I might not let the fire die too fast, in the morning I had three very good, I will not say handsome, jars, and two other earthen pots, as hard burnt as could be desired.

After this experiment I need not say that I wanted no sort of earthenware for my use; but I must say, as to the shapes of them, they were very indifferent, as any one may suppose, as I had no way of making them but as children make dirt pies.

No joy at an article of so mean a nature was ever equal to mine, when I found I had made an earthen pot that would bear the fire; and I had hardly patience to wait till they were cold, before I set one on the fire again, with some water in it, to boil me some meat, which it did admirably well.

My next concern was to get a stone mortar in which to stamp or beat corn. To supply this want I was at a great loss; for I was perfectly unqualified to serve as a stone-cutter; neither had I any tools to go about the task.

I spent many a day to find a great stone big enough to cut hollow and make fit for a mortar, but could find none at all, except what was in the solid rock, and which I had no

way to dig or cut out; nor, indeed, were the rocks in the island of sufficient hardness, as they were all of a sandy crumbling stone, which would neither bear the weight of a heavy pestle, nor would break the corn without filling it with sand.

So after a great deal of time lost in searching for a stone, I gave it up, and resolved to look for a great block of hard wood, which I found indeed much easier. Getting one as big as I had strength to move, I rounded it, and formed it on the outside with my axe and hatchet. Then, with the help of the fire and infinite labor, I made a hollow place in it as the Indians in Brazil make their canoes. After this I made a great heavy pestle, or beater, of the wood called iron-wood; and this I prepared and laid by until I had my next crop of corn, when I proposed to myself to grind, or rather pound, my corn into meal to make my bread.

My next difficulty was to make a sieve to separate my meal from the bran and the husk. Here I was at a full stop for many months, but at last I remembered that I had among the seamen's clothes which were saved out of the ship some neckcloths of calico or muslin, and with some pieces of these I made three small sieves.

The baking was the next to be considered. For an oven I was indeed puzzled. At length I made some earthen vessels, very broad but not deep; that is to say, about two feet in diameter, and not above nine inches deep. These I burned in the fire and laid them by. When I wanted to bake, I made a great fire upon my hearth, which I had paved with some square tiles of my own making and burning also. When the firewood was burned into embers, or live coals, I drew them forward upon the hearth, so as to cover it all over, and there let them lie till the hearth was very hot.

Then, sweeping away all the embers, I set down my loaf or loaves and, covering them with the earthen pot, drew the embers all around the outside of the pot to keep in and add to the heat. Thus, as well as in the best oven in the world, I baked my barley loaves, and became, in a little time, a good

pastry-cook into the bargain; for I made myself several cakes and puddings of the rice, but made no pies, as I had nothing to put into them except the flesh of fowls or goats.

It need not be wondered at if all these tasks took up the most part of the third year of my abode here; for in the intervals of time, I had my new harvest to manage; I reaped my corn in its season, carried it home as well as I could, and laid it up in my large baskets.

By this time my clothes had begun to decay mightily. As to linen, I had had none for a great while, except some checkered shirts which I found in the chests of the other seamen, and which I carefully preserved. I also saved the skins of all the animals that I killed, and found them very useful.

The first thing I made of these was a great cap for my head, with the hair on the outside, to shoot off the rain. After this I made a suit of clothes wholly of the skins, that is to say, a waistcoat, and breeches open at the knees, and both loose; for I wanted them to keep me cool rather than warm. They were wretchedly made; for if I was a bad carpenter, I was a worse tailor. But they were such as I made very good shift with.

After this, I spent a deal of time and pains to make me an umbrella, for I was in great want of one to protect me from the rains and the heats. I took a world of pains at it, but at last made one that answered, and covered it with skins, the hair upward, so that it cast off the rain and kept off the sun.

Thus I lived mighty comfortable for ten years, my mind being entirely resigned to the will of God, and throwing myself wholly upon His providence.

Meantime, my ammunition growing low, I set myself to trap and snare the wild goats, to see whether I could not catch some of them alive. I dug several large pits in the earth, in places where I had observed the goats used to feed. Over these pits I placed hurdles of my own making, with a great weight upon them, and several times I put ears of barley

and dry rice. Going one morning to see my traps, I found in one of them a large old he-goat, and in one of the others three kids.

I knew not what to do with the old goat. He was so fierce I durst not go into the pit to bring him away alive, which was what I wanted. I could have killed him, but that would not have answered my end; so I let him out, and he ran away, as if he had been frightened out of his wits.

Then I went to the three kids and, taking them one by one, I tied them together with strings and with some difficulty brought them home. It was a good while before they would feed; but throwing them some sweet corn, it tempted them, and they began to be tame.

In about a year and a half I had a flock of about twelve goats, kids and all: and in two years more, I had three-and-forty, besides several which I killed for food. After that I enclosed five pieces of ground in which to feed the goats, with little pens to drive them into to take them as I wanted, and with gates out of one piece of ground into another.

But this was not all; for now I not only had goat's flesh to feed on when I pleased, but milk as well; a thing which, in the beginning, I did not so much as think of. After a great many failures, I also made both butter and cheese.

It would have made a stoic smile to see me and my little family sit down to dinner. There was my majesty, the prince and lord of the whole island. I had the lives of all my subjects at my absolute command. Then to see how like a king I dined, too, all alone, attended by my servants.

Poll, as if he had been my favorite, was the only person permitted to talk to me. My dog, now grown very old, sat always at my right hand; and two cats, one on one side of the table and one on the other, expecting now and then a bit from my hand as a mark of special favor. With this attendance, and in this plentiful manner, I lived. Neither could I be said to lack anything but society; and of that, some time after this, I was likely to have too much.

BEST-ANSWER TEST

Copy the words which best complete the sentences.

1. Crusoe first made for himself:
   a. clothes and shoes.
   b. a chair and a table.
   c. pots and pans.

2. Crusoe made boards with:
   a. an axe and an adze.
   b. a saw and a chisel.
   c. a hatchet and a file.

3. The first word the parrot learned was:
   a. cracker.
   b. Crusoe.
   c. Poll.

4. Crusoe used his first earthen jars:
   a. to hold corn.
   b. to hold water.
   c. to cook food.

5. The sieve was made out of:
   a. wire.
   b. cord.
   c. cloth.

6. In his oven Crusoe baked:
   a. loaves and cakes.
   b. pies and jelly cakes.
   c. ham and eggs.

7. Crusoe made his clothes of:
   a. cotton.
   b. wool.
   c. skins.

8. Crusoe caught the goats in:
   a. concealed pits.
   b. steel traps.
   c. wooden cages.

9. The mortar for stamping or heating corn was made of:
   a. iron.
   b. stone.
   c. wood.

10. Crusoe captured the goats so that he might have a constant supply of:
    a. fleece.
    b. company.
    c. food.

Look over the selection again to see if your words are right; give yourself ten points for each correct answer. What is your score?

2. PETE OF THE STEEL-MILLS

HERSCHEL S. HALL

How would this story serve for a motion-picture play? As you read, select one passage on which to prepare a description of the action as it would appear if thrown on the screen. Read this passage a second time.

It was a black and dirty street down which I made my way that November morning at half-past five. There was no paving, no sidewalk, no lights. Rain had been falling for days, and I waded through seas of mud and sloshed through lakes of water. There were men in front of me and men behind me, all plodding along through the mire, just as I was plodding along, their tin lunch-pails rattling as mine was rattling. Some of us were going to work, some of us were going to look for work — the steel-mills lay somewhere in the darkness ahead of us.

We who were not so fortunate as to possess a magical piece of brass, the showing of which would cause the steel-mills' gate to swing open, waited outside in the street. It was cold out there. A north wind, blowing straight in from the lake, whipped our faces and hands and penetrated our none-too-heavy clothing.

"I wish I had a job in there!" said a shivering man at my side. "You got a job?" he asked, glancing at my pail. I told him I had been promised work and had been ordered to report.

"You're lucky to get a job." He began to kick his muddy shoes against the fence and to blow upon his hands. "Winter's comin'," he sighed.

A whistle blew, a gate swung open, and a mob of men poured out into the street — the night shift going off duty. Their faces looked haggard and deathly pale in the sickly glare of the pale blue arcs above us.

"Night-work's no good," said the small man at my side. "But you got to do it if you're goin' to work in the mills."

A man with a Turkish towel thrown about his neck came out of the gate and looked critically at the job hunters. He came up to me. "What's your name?" he demanded. I told him. "Come on!" he grunted.

We stopped before the uniformed guard, who wrote my name on a card, punched the card, and gave it to me. "Come on!" again grunted the man with the towel. I followed my guide into the yard, over railroad tracks, past great piles of scrap-iron and pig metal, through clouds of steam and smoke, and into a long, black building where engines whistled, bells clanged, and electric cranes rumbled and rattled overhead.

Through a long, hot tunnel down which I saw red arms of flame reaching, we made our way. We came to an iron stairway, climbed it, and stepped out upon a steel floor into the open hearth. Scattered here and there, I saw groups of men at work in front of big, house-like furnaces out of whose mouths white tongues of flame were leaping. The men worked naked to the waist, or stripped to overalls and undershirt, and, watching them, I began to wonder if I had chosen wisely in seeking and accepting employment in this inferno.

"Put yer pail there. Hang yer coat there. Sit down there. I'll tell the boss ye're here." And the man with the towel went away.

I watched a man who worked at one of the doors of the furnace nearest me. He had thrust a bar of iron through the peep-hole and was jabbing and prying at some object inside. Every ounce of his strength he was putting into his efforts. I could hear him grunt as he pulled and pushed, and I saw the perspiration dripping from his face and naked arms. He withdrew the bar — the end that had been inside the door came out as white and as pliable as a hank of taffy — and dropped it to the floor. He shouted some command to an invisible person, and the door rose slowly and quietly, disclosing a great, snow-white cavern in whose depths bubbled and boiled a lake of steel.

With a quick movement of his hand the workman dropped

a pair of dark-colored spectacles before his eyes, and his arms went up before his face to shield it from the blast that poured out through the open door. There he stood, silhouetted against that piercing light, stooping and peering, tiptoeing and bending, cringing and twisting, as he tried to examine something back in the furnace. Then with another shout he caused the door to slip down into its place.

He came walking across the floor to where I sat, and stopped in front of me. The sweat fell from his blistered face, ran in tiny rivulets from his arms and hands, and splashed on the iron floor. He trembled, gasped for breath, and I thought he was going to sink down from exhaustion, when, to my surprise, he deliberately winked at me.

"Ought never to have left the farm, ought we? Eh, buddy?" he said with a chuckle. And that was my introduction to Pete, the best open-hearth man I ever knew, a good fellow, clean and honest.

"Mike, put this guy to wheeling in manganese," said a voice behind me, and I turned and saw the boss.

"Get that wheelbarrer over yender and foller me," instructed Mike, a little, old, white-haired Irishman, called the "maid of all work" about the plant. I picked up the heavy iron wheelbarrow and trundled it after him, out to a building where the alloys used in steel-making were kept.

"Now, then, you load your wheelbarrer up with this ma'ganese and weigh it over on the scales yender, and then wheel it in and put it behind Number Four," Mike told me.

"Why is manganese put into steel?" I asked Pete on one of my trips past his furnace.

"It settles it, toughens it up, and makes it so it'll roll," he answered.

All day I trundled the iron wheelbarrow along the iron floor, wheeling in manganese. I watched the powerful electric cranes picking up the heavy boxes of material and dumping their contents into the furnaces. I watched the tapping of the "heats," when the dams holding in the boiling lakes

would be broken down and the fiery floods would go rushing and roaring into the ladles, these to be whisked away to the ingot moulds. And I watched the men at work, saw the strain they were under, saw the risks they took, and wondered if, after a few days, I could be doing what they were doing.

"It is all very interesting," I said to Pete, as I stood near him, waiting for a crane to pass by.

He grinned. "Uh huh! But you'll get over it. 'Bout to-morrow mornin', when your clock goes rattlety-bang and you look to see what's up and find it's five o'clock, you'll not be thinkin' it so interestin', oh, no! Let's see your hands." He laughed when he saw the blisters the handles of the wheelbarrow had developed.

Pete was right. When my alarm clock awakened me next morning and I started to get out of bed I groaned in agony. Every muscle of my body ached. I fancied my joints creaked as I sat on the edge of the couch vainly endeavoring to get them to working freely and easily. The breakfast bell rang twice, but hurry I could not.

"You'll be late to work! The others have gone!" called the landlady. I managed to creak downstairs. My pail was packed and she had tied up an extra lunch in a newspaper. "You can't stop to eat, if you want to get to work on time," she said. "Your breakfast is in this paper — eat it when you get to the mills."

I stumbled away in the darkness, groaning and gasping, and found my way to the black and dirty street. The mud was frozen hard now, the pools of water were ice covered, and my heavy working shoes thumped and bumped along the dismal road in a remarkably noisy manner.

The number of job hunters was larger this morning. Among them I saw the small man who could not "get took," and again he was peeking wishfully through the knothole in the fence.

"You're on, eh?" he said, when he spied me. "I wish I

was. Say, you haven't got a dime you could spare a feller, have you?" I discovered a dime.

I showed my brass check — a timekeeper had given me one the day before, Number 1266 — to the uniformed watchman. He waved me on, and I entered the gate just as the whistle blew. A minute later and I would have been docked a half-hour.

Mike took me in hand as soon as I came on the floor and proceeded to give me a few pointers. "I kept me eye on ye all day yestiddy, and ye fair disgoosted me with the way ye cavorted round with the Irish buggy. As though ye wanted to do it all the first day! Now, ye're on a twelve-hour turn here, and ye're not expected to work like a fool. Ye'll get in bad with the boss if he sees ye chinnin' with Pete. He doesn't like Pete, and Pete doesn't like him, and I don't blame Pete. The boss has brainstorms. Watch out for 'em."

I followed much of Mike's advice. All that day I trundled the wheelbarrow, but I made an easier day of it, and no one objected to my work. And as the days ran by I found my muscles toughening, and I could hear the alarm-bell at five in the morning without feeling compelled to squander several valuable minutes in wishing I had been born rich.

For two weeks I worked every day at wheeling in materials for the furnaces. Then one day, when a workman dropped a piece of pig-iron on his foot and was sent to the hospital, I was put on "second helping."

By good luck I was sent to Pete's furnace. Pete and I by this time were great cronies. Many a chat we had had, back behind his furnace, hidden from the prying eyes of the boss. I found Mike was right — it was just as well to keep out of his sight. I soon discovered that he did not like Pete. In numberless mean and petty ways did he harass the man, trying to make him do something that would give an excuse to discharge him. But Pete was slow to anger, and with admirable strength he kept his feelings under control.

I was working nights now, every other week. The small man at the gate — he had finally "got took" and was laboring in the yard gang — who had told me that "night-work is no good" knew what he was talking about. I found night-work absolutely "no good." The small hours of the night are the terror of the night worker.

Sometimes when we had had a particularly hard spell of work and were dead-beat with fatigue and exhaustion, then Pete might be expected to put his well-known question: "Ought to have stayed on the farm, oughtn't we? Hey, buddy?"

The foolish question, and his comical way of asking it, always made me laugh. Seeing that Pete had once been a farm laborer, the remark was not so silly, after all. It was his way of comparing two kinds of work; it was his favorite stock jest. I know farm work, too, from pigs to potatoes, and I do not believe there is any kind of farm work, ten hours of which would equal thirty minutes of "splashing" on an open-hearth furnace, in muscle-tearing, nerve-racking, back-breaking, sweat-bringing effort.

Pete and I were working on Number Three furnace, the latest type and the "fastest" of any in the group. Its monthly output was three or four hundred tons more than that of any other. It belonged to Pete by rights — he was the oldest man on the floor, and he was regarded by all the other furnace-men as the best "first helper" in the plant. No other "first helper" watched his roof so carefully as did he. No other could get as many heats "from a roof" as did he. For every three hundred and fifty heats tapped from a furnace before the furnace required a new roof, the company gave the "first helper" a bonus of fifty dollars. This was to encourage them to watch their furnaces closely, to see that the gas did not "touch" the roofs.

One morning Pete and I were notified that we were transferred to Number Ten, the oldest, the slowest, and hardest furnace to work of any. Lewis, a Welshman, a friend of the

boss, was to take Number Three. Pete would lose the bonus money due in thirty days.

"What's this for?" he demanded of the boss.

"Because you don't watch your furnace!" snarled the boss in reply. "You've touched that roof! There are icicles on it right now!"

Pete walked over to the air-valves, jerked the lever, and threw up the middle door. "Show me an icicle in there!" he cried. "I'll give you five hundred dollars for every one you point out!"

"Lower that door!" roared the boss. "And get down to Number Ten! Or go get your time, if you prefer!"

Pete was silent for a moment. Then he threw up his head and laughed. Going to his locker, he took out his lunch-pail and started for Number Ten.

"I rather think I am goin' to take a trip back to Minnesota pretty soon — to see the folks, you know," he said to me that afternoon.

Number Ten melted "soft" that day, and Pete could not get the heat hot. We pigged steadily for two hours, but it remained cold and dead. We were played out when, about four o'clock, the boss came up.

"Why don't you get that heat out?" he demanded. "You've been ten hours on it already!" Pete made no reply. "Where's a test-bar?" He shoved the test-bar into the bath, moved it slowly back and forth, and withdrew it. "She's hot now! Take her out!"

Pete looked at the end of the bar. It was ragged, not bitten off clean as it would have been had the temperature of the bath been right. "She's a long way from bein' hot," he said, pointing at the test-bar.

"Don't you dispute me!" roared the boss. "If I say she's hot, she's hot! If I tell you to take her out, you take her out!"

We took out the heat. And a miserable mess there was. It was so cold it froze up in the tap-hole, it froze up in the

runner, it froze up in the ladle. The entire heat was lost. It was an angry crew of men that worked with sledges, bars, and picks, cleaning up the mess. I was sorry the boss could now know how much that bunch of men loved him.

I saw him approaching Pete; I saw him shaking his clenched fist; I heard an ugly word; the lie was passed, a blow was struck, and the long-expected fight was on.

Out on the smooth iron floor, in the glare of the furnace flames — some one had hoisted the three doors to the top — the two enemies fought it out. They were giants in build, both of them muscled like gladiators. It was a brutal, savage exhibition. Finally, the boss reeled, dropped to his knees, swayed back and forth, and went down.

Pete, having floored the boss, took a bath, changed his clothes, shook hands all round, and came seeking me. "Well, buddy, I'm off," he chuckled, peeping at me from a chink in his swollen face. "Like as not I'll be shuckin' punkins up in Minnesota this time next week. Oh, no use my tryin' to stick it out here — you can't stay here, you know when you've had a go with the boss. So long!"

I did not go to work the next day, nor the next. I was deliberating whether I would go back at all, the morning of the third day, when Mike came looking for me. "Pete wants you to come to work," he announced.

"Pete?" I said, wondering what he meant.

"You said it! Pete's boss now!"

"No!"

"Yes! Oh, the super, he isn't blind! He knew what was goin' on, he did, and it didn't take him long to fix him when he'd heard the peticlars. I'll tell Pete you'll be comin' along soon." And Mike departed.

I went back and resumed my old position on Number Three, with John Yakabowski, a Pole. Yakabowski was an exceptionally able furnace-man and an agreeable fellow workman. There was great rejoicing all over the plant because our old boss was out, and there was general satisfaction over

Pete's appointment to his place. This feeling among the men was soon reflected in the output of the furnaces — our tonnage showed a steady increase.

Pete was nervous and ill at ease for a few weeks. He was afraid he would make some mistake that would show him to be unworthy of the trust the superintendent had placed in him.

"No education — that's where I'm weak!" he said to me in one of our confidential chats. "Can't write, can't figger, can't talk — don't know nothin'! It's embarrassin'! The super tells me to use two thousand of manganese on a hundred-and-fifty-thousand-pound charge. That's easy — I just tell a hunky to wheel in two thousand. But s'pose that lunk-head out in them scales goes wrong, and charges in a hundred and sixty-five thousand pounds and doesn't tell me until ten minutes before we're ready to tap — how am I goin' to figger out how much more manganese to put in? Or when the chief clerk writes me a nice letter, requestin' a statement showin' how many of my men have more than ten children, how many of 'em can read the Declaration of Independence, and how many of 'em eat oatmeal for breakfast, why, I'm up against it, I tell you! No education! I reckon I ought never to've left the farm. Hey, buddy?"

I understood Pete's gentle hint, and I took care of his clerical work, writing what few letters he had to send out, making up his statements, doing his calculating, and so forth.

Six months passed. Pete had "made good." The management was highly pleased with him as a melter. Success had come to me, too, in a modest way — I had been given a furnace — I was now a "first helper."

It was about the time I took the furnace that I began to notice a falling off in the number of requests from Pete for assistance. I thought little of it, supposing that he was getting his work done by one of the weighers. But one night when I went down to his office to have a chat, I found him seated at his little desk poring over an arithmetic. He

looked up at me and grinned in a rather shamefaced manner.

"Oh, that's it, is it?" I said. "Now I understand why I'm no longer of any use to the boss!"

"Well, I just had to do somethin'," he laughed. "Couldn't afford to go right on bein' an ignoramus all the time."

"Are you studying it out alone?"

"You bet I'm not! I'd never get there if I was! I've a teacher, a private teacher. He comes every other night, when I'm workin' days, and every other afternoon, when I'm workin' nights. Gee, but I'm a bonehead! He's told me so a dozen times, but the other day he said he thought I was 'softenin' up a bit."

Good old Pete! I left him that night with my admiration for the man increased a hundred times.

Another six months passed, six months of hard, grinding toil, and yet a six months I look back upon with genuine pleasure. I now had the swing of the work and it came easy; conditions about the plant under Pete's supervision were ideal; I was making progress in the work; we were making good money. Then came the black day.

How quickly it happened! I had tapped my furnace, and the last of the heat had run into the ladle. "Hoist away!" I heard Pete shout to the crane-man. The humming sound of the motors getting into action came to my ears. The giant crane was groaning and whining as it slowly lifted its eighty-ton burden from the pit where the ladle stood. It was then five or six feet above the pit's bottom. Pete was leaning over the railing of the platform directly in front of the rising ladle.

Suddenly something snapped among the shafts and cables. I saw two men in the crane cab go swarming up the escape-ladder. I saw the ladle drop as a broken cable went flying out of a sheave. A great white wave of steel washed over the ladle's rim, and another, and another.

Down upon a shallow pool of water that a leaking hose had

formed, the steel was splashed, and as it struck, the explosion came. I was blown from my feet and rolled along the floor. The air was filled with bits of fiery steel, brick, and débris of all kinds. I crawled to shelter behind a column and there beat out the flames that were burning my clothing in a half-dozen places. Then, groping through the dust and smoke that choked the building, I went to look for Pete.

Near the place where I had seen him standing when the ladle fell I found him. Two workmen, who had been crouching behind a wall when the explosion came and were unhurt, were tearing his burning clothes from his blackened body. Somebody brought a blanket, and we wrapped it about him. We doubted if he lived, but as we carried him back I noted he was trying to speak, and stooping, I caught the words: "Ought never to have left the farm, ought we? Hey, buddy?"

That was the last time I ever heard Pete speak. That was the last time I ever saw him alive.

Two o'clock in the morning. Sitting at the little desk where I found Pete that night poring over his arithmetic, I have been writing down my early experiences in the open hearth. Here comes Yakabowski with a test. I know exactly what he will say: "Had I better give her a dose of ore?" Two o'clock in the morning! The small man at the gate was right: Night-work is no good!

I was mistaken; Yakabowski doesn't ask his customary question. He looks at me curiously. "You don't look good, boss," he says. "You sick, maybe?"

Yes, I'm sick — I always am at two o'clock in the morning, when I'm on the night shift. I stretch, I yawn, I shudder.

"Ought never to have left the farm, ought we? Hey, Yakabowski?" I say to the big Pole.

CLASS ACTIVITIES

1. Describe the action in the passage you selected (p. 142) as it would appear if thrown on the screen. Point out the different

scenes which would be pictured if the entire story were made into a motion-picture.

2. Explain in order the different kinds of work done by the teller of the story.
3. Give the reasons of the author for thinking that work in a steel-mill is more severe than work on a farm. Do you agree with him? Give reasons.
4. Read the passages in which there is a touch of humor.
5. Name any preceding selections which gave you something to bring to this story and tell what they gave you.
6. Tell what you like most about Pete. Read passages which show the ability and the modesty of the teller of the story.

ADDITIONAL READINGS. — 1. "The Steel Worker," B. Braley, in *Songs of a Workaday World*, 17–18. 2. "Pioneers of the Machine Shop," H. Thompson, *Age of Invention*, 175–193. 3. "The Epic of Steel," B. J. Hendrick, *Age of Big Business*, 58–85. 4. "Vulcan," J. Husband, *America at Work*, 20–31.

3. MANUFACTURING AUTOMOBILES

BURTON J. HENDRICK

When you finish this selection, be able to explain and illustrate what is meant by standardization.

A few years ago an English manufacturer, seeking the explanation of America's ability to produce an excellent automobile so cheaply, made an interesting experiment. He obtained three American cars, all of the same "standardized" make, and gave them a long and racking tour over English highways. Workmen then took apart the three cars and threw the disjointed remains into a heap. Every bolt, bar, gas-tank, motor, wheel, and tire was taken from its accustomed place and piled up, a mass of rubbish. Workmen then painstakingly put together three cars from these disordered elements. Three chauffeurs jumped on these cars, immediately started them down the road, and made a long journey just as acceptably as before. The Englishman had learned the secret of American success with automobiles. The one word "standardization" explained the mystery.

Probably American industry contains no finer story than that of the American workman who played the chief role in standardizing the making of automobiles. From the beginning it seemed inevitable that Henry Ford should play this part in the world. Born in Michigan in 1863, he had always shown an interest in things far removed from the farm. Only mechanical devices interested him. He liked getting in the crops, because McCormick harvesters did most of the work; it was the machinery of the dairy that held him enthralled.

He developed destructive tendencies as a boy; he had to take everything to pieces. He horrified a rich playmate by taking his new watch apart — and promptly quieted him by putting it together again. "Every clock in the house shuddered when it saw me coming," he recently said. He constructed a small working forge in his school-yard, and built a small steam-engine that could make ten miles an hour. He spent his winter evenings reading mechanical and scientific journals. Machinery in any form fascinated him.

Some boys run away from the farm to join the circus or to go to sea; Henry Ford at the age of sixteen ran away to get a job in a machine-shop. Here one thing immediately impressed him. No two machines were made exactly alike; each was regarded as a separate job. With his savings from his weekly wage of $2.50, young Ford purchased a three-dollar watch, and immediately dissected it. If several thousand of these watches could be made, each one exactly alike, they would cost only thirty-seven cents apiece. "Then," said Ford to himself, "everybody could have one." He had fairly made his plans to start a factory on this basis when his father's illness called him back home.

This was about 1880. Ford's next conspicuous appearance in Detroit was about 1892. This appearance was not only conspicuous, but it was exceedingly noisy. Detroit now knew him as the pilot of a queer affair that whirled and lurched through her streets, making as much disturbance as a freight-train. In reading his technical journals Ford had met many

descriptions of horseless carriages; the consequence was that he had again broken away from the farm, taken a job at $45 a month in a Detroit machine-shop, and devoted his evenings to the making of a gasoline engine. His young wife was exceedingly concerned about his health; the neighbors' judgment was that he was insane.

Only two other Americans, Charles B. Duryea and Ellwood Haynes, were attempting to construct an automobile at that time. Long before Ford was ready with his machine, others had begun to appear. Duryea turned out his first one in 1892; and foreign makes began to appear in considerable numbers.

But the Detroit mechanic had a greater inspiration. He was not working to make one of the finely upholstered and beautifully painted vehicles that came from overseas. "Anything that isn't good for everybody is no good at all," he said. Precisely as it was Vail's ambition to make every American a user of the telephone and McCormick's to make every farmer a user of the harvester, so it was Ford's determination that every family should have an automobile. He was apparently the only man who saw that the new machine was not primarily a luxury but a convenience.

Yet all manufacturers, here and in Europe, laughed at his idea. Why not give every man a Fifth Avenue house? Frenchmen and Englishmen scouted the idea that any one could make a cheap automobile. Its machinery was particularly refined and called for the highest grade of steel; the clever Americans might use labor-saving devices on many products, but only skillful hand work could turn out a motor-car. European manufacturers regarded each car as a separate problem; they individualized its manufacture almost as scrupulously as a painter paints a portrait or a poet writes a poem. The result was that only a man with several thousand dollars could purchase one. But Ford had a different idea.

Ford's earliest banker was the proprietor of a quick-lunch wagon at which the inventor used to eat his midnight meal

after his hard evening's work in the shed. "Coffee Jim," to whom Ford confided his hopes on these occasions, was the only man with cash who had any faith in his ideas. With money advanced by "Coffee Jim," Ford built a machine which he entered in the Grosse Point races. It was a hideous-looking affair, but it ran like the wind and outdistanced all competitors. From that day Ford's career has been a triumph. But he rejected the earliest offers of capital because the millionaires would not agree to his terms. They were looking for high prices and quick profits, while Ford's plans were for low prices, large sales, and the use of profits to extend the business and reduce the cost of his machine.

When Ford first talked of turning out 10,000 automobiles a year, his associates asked him where he was going to sell them. His answer was that that was no problem at all; the machines would sell themselves. He said that there were millions of people in this country whose incomes exceeded $1,800 a year; all in that class would be prospective purchasers of a low-priced automobile. There were 6,000,000 farmers alone; what better market could one ask? His only problem was how to produce his machine in sufficient quantities.

The bicycle business in this country had passed through a similar experience. When first placed on the market bicycles were expensive; it took $100 or $150 to buy one. In a few years, however, an excellent machine was selling for $25 or $30. What explained this drop in price? The answer is that the manufacturers learned to standardize their product. Bicycle factories became not so much places where the articles were manufactured as assembling rooms for putting them together. The several parts were made in different places, each establishment specializing in a particular part; they were then shipped to centres where they were made into complete machines. The result was that the United States, despite the high wages paid here, led the world in bicycle making and flooded all countries with this article.

Thus Henry Ford did not invent standardization; he merely applied this great American idea to a product to which it seemed at first unadapted. He soon found that it was cheaper to ship the parts of ten cars to a central point than to ship ten completed cars. There would therefore be large savings in making his parts in particular factories and shipping them to assembling establishments. In this way the completed cars would always be near their markets.

It was necessary to plan the making of every part to the minutest detail, to have each part machined to its exact size, and to have every screw, bolt, and bar precisely interchangeable. About the year 1907 the Ford factory was systematized on this basis. In that twelve-month it produced 10,000 machines, each one the absolute counterpart of the other 9,999. American manufacturers until then had been content with a few hundred a year!

A glimpse of a Ford assembling room — and we can see the same process in other American factories — makes clear the reasons for this success. In these rooms no fitting is done; the fragments of automobiles come in automatically and are simply bolted together. First of all the units are assembled in their several departments. The rear axles, the front axles, the frames, the radiators, and the motors are all put together with the same precision and exactness that marks the operation of the completed car.

Thus the wheels come from one part of the factory and are rolled on an inclined plane to a particular spot. The tires are propelled by some mysterious force to the same spot; as the two meet, workmen quickly put them together. In a long room the bodies are slowly advanced on moving platforms at the rate of about a foot a minute. At the side stand groups of men, each prepared to do his bit, their materials being delivered at convenient points by chutes.

As the tops pass by these men quickly bolt them into place, and the completed body is sent to a place where it awaits the chassis. This important section, comprising all the machin-

ery, starts at one end of a moving platform as a front and rear axle bolted together with the frame. As this slowly advances, it passes under a bridge containing a gasoline tank, which is quickly adjusted. Farther on the motor is swung into position on the frame. Presently the dash slides down and is placed in position behind the motor.

As the rapidly accumulating mechanism passes on, different workmen adjust the mufflers, exhaust pipes, the radiator, and the wheels, which, as already indicated, arrive on the scene completely tired. Then a workman seats himself on the gasoline tank, which contains a small quantity of fuel, starts the engine, and the thing moves out the door under its own power. It stops for a moment outside; the completed body drops down from the second floor, and a few bolts quickly put it in place. The workman drives the now finished Ford to a loading platform, it is stored away in a box car, and is started on its way to market.

CLASS ACTIVITIES

1. Explain and illustrate standardization in industry. How does standardization affect the cost of an article?
2. Describe the English manufacturer's experiment with American cars. Why did the author include it in the selection?
3. What was Ford's main aim in making automobiles? Why did other manufacturers laugh at his idea?
4. Did Ford invent or discover standardization? If not, what was his contribution to American industry?
5. Describe how cars are assembled in a Ford plant.
6. What plan did the author follow in writing this selection, "the link-and-chain plan," the "hand" plan, or some other? Explain with a diagram, giving a name or title to each part of your drawing.
7. Give, if possible, an example of standardization of industry in your own community.
8. *Special report for a volunteer.* How the automobile has changed human life. (See B. J. Hendrick, *Age of Big Business*, 170–188; or "The Social Influence of the Automobile," A. D. Albert, in *Scribner's Magazine*, 71 : 685–688.)

CLASS-LIBRARY READINGS

MAKING THINGS

1. "How John Muir Became an Explorer," *Vocational Reader*, 61–66.
2. "The Man Who Cheapened Tacks," *ibid.*, 152–157.
3. "The Housewife Who Built a Telescope," *ibid.*, 181–186.
4. "John Muir, Interpreter of Nature," in *Makers of Our History*, 331–342.
5. "Women and Craftsmanship," M. B. Eson-Kohler, in *Opportunities of Today for Boys and Girls*, 227–230.
6. "The Making of a Basket," K. T. Fogarty, in *The Joy in Work*, 159–166.
7. "The Story in a Watch," *Wonder Book of Knowledge*, 61–72.
8. "The Story of America's Horseless Carriage," *ibid.*, 290–291.
9. "The Story in the Making of a Pair of Shoes," *ibid.*, 436–448.
10. "The Story of an Automobile Factory," *ibid.*, 518–539.
11. "A Wind-Storm in the Forests," John Muir in *The Promise of Country Life*, 58–67.
12. "The Automobile and How It Works," *Compton's Pictured Encyclopedia*, 1:274–287.
13. "The Miracles of Iron and Steel," *ibid.*, 5:1815–1826; *Book of Knowledge*, 2:617–624.
14. "The Marvel of Matches and How They Are Made," *Compton's Pictured Encyclopedia*, 5:2170–2174; *Book of Knowledge*, 3:773–780.
15. "The Steeple-Climber," *Careers of Danger and Daring*, 3–39.
16. "The Dynamite Worker," *ibid.*, 348–376.
17. "The Story of the Automobile," *World Book*, 1:512–518.
18. "The Match," *Stories of Useful Inventions*, 3–12.
19. "The Clock," *ibid.*, 211–226.
20. "Making Iron and Steel," *Book of Knowledge*, 18:5537–5556.

D. THE MAKERS AND THE BUILDERS

1. THE VILLAGE BLACKSMITH

HENRY WADSWORTH LONGFELLOW

Read these four poems about work and workers twice and then write on a slip of paper their titles, putting the one you like best first, the one you like next best second, and so on.

Under a spreading chestnut tree
The village smithy stands;
The smith, a mighty man is he,
With large and sinewy hands;
And the muscles of his brawny arms
Are strong as iron bands.

His hair is crisp, and black, and long;
His face is like the tan;
His brow is wet with honest sweat:
He earns whate'er he can;
And looks the whole world in the face,
For he owes not any man.

Week in, week out, from morn till night,
You can hear his bellows blow;
You can hear him swing his heavy sledge
With measured beat and slow,

Like a sexton ringing the village bell,
When the evening sun is low.

And children coming home from school
Look in at the open door;
They love to see the flaming forge,
And hear the bellows roar,
And catch the burning sparks that fly
Like chaff from a thrashing floor.

He goes on Sunday to the church,
And sits among his boys;
He hears the parson pray and preach;
He hears his daughter's voice
Singing in the village choir,
And it makes his heart rejoice.

It sounds to him like her mother's voice,
Singing in Paradise!
He needs must think of her once more,
How in the grave she lies;
And with his hard, rough hand he wipes
A tear out of his eyes.

Toiling — rejoicing — sorrowing,
Onward through life he goes;
Each morning sees some task begun;
Each evening sees it close;
Something attempted, something done,
Has earned a night's repose.

Thanks, thanks to thee, my worthy friend,
For the lesson thou hast taught!
Thus at the flaming forge of life
Our fortunes must be wrought;
Thus on its sounding anvil shaped
Each burning deed and thought!

2. I HEAR AMERICA SINGING

WALT WHITMAN

I hear America singing, the varied carols I hear,
Those of mechanics, each one singing his as it should be, blithe and strong,
The carpenter singing his as he measures his plank or beam,
The mason singing as he makes ready for work, or leaves off work,
The boatman singing what belongs to him in the boat, the deckhand singing on the steamboat deck,
The shoemaker singing as he sits on his bench, the hatter singing as he stands,
The wood-cutter's song, the ploughboy's on his way in the morning, or at noon intermission, or at sundown,
The delicious singing of the mother, or of the young wife at work, or of the girl sewing or washing,
Each singing what belongs to him or her and to none else,
The day that belongs to the day — at night the party of young fellows, robust, friendly,
Singing with open mouths their strong melodious songs.

3. WORK GANGS

CARL SANDBURG

Hammers and shovels of work gangs sleep in shop corners
When the dark stars come on the sky and the night watchmen walk and look.

Then the hammer heads talk to the handles,
then the scoops of the shovels talk,
how the day's work nicked and trimmed them,
how they swung and lifted all day,
how the hands of the work gangs smelled of hope.

In the night of the dark stars
when the curve of the sky is a work gang handle,
in the night on the mile long sidetracks,
in the night where the hammers and shovels sleep in corners,
the night watchmen stuff their pipes with dreams —
and sometimes they doze and don't care for nothin'
and sometimes they search their heads for meanings, stories, stars.

The stuff of it runs like this:
A long way we come; a long way we go; long rests and long deep sniffs for our lungs on the way.
Sleep is a belonging of all; even if all songs are old songs and the singing heart is snuffed out like a switchman's lantern with the oil gone; even if we forget our names and houses in the finish, the secret of sleep is left us; sleep belongs to all; sleep is the first and last and best of all.

People singing; people with song mouths connecting with song hearts; people who must sing or die; people whose song hearts break if there is no song mouth; these are my people.

4. THE SONG OF THE WORLD

ISABEL BOWMAN FINLEY

There's a song that the hammer is singing,
A ringing and wholesome song,
Of the day's bread won,
Of the day's work done,
Of a mould well cast
In the fiery blast —
And never one blow gone wrong.

There's a song that the engines are singing,
A deep and echoing song,

Of the whirring wheel
And the burnished steel,
From the lightest spring
To the mightiest swing —
And never a stroke gone wrong.

There's a song that the sails are singing,
A humming and catching song,
Of the prow that braves
The ravening waves,
Of storms outsailed,
And of ports safe hailed —
And never the helm gone wrong.

There's a song that the world is singing,
A resonant, splendid song,
Of its work, work, work,
With never a shirk,
Of its battles won,
Of its labors done —
And of Right that masters Wrong!

CLASS ACTIVITIES

1. Let a committee collect and report the votes of the class on these poems, scoring them as follows:
   1. First place ..... 5 points
   2. Second place ..... 3 points
   3. Third place ..... 1 point

   Let members of the class give reasons for their preferences.
2. What thought is common to all these poems?
3. Poets frequently produce a desired effect by repetition. Notice, for example, Sandburg's repetition of the word "long" in the second line of the next to the last stanza. Point out other instances of repetition in these poems and tell the effect which the poet is trying to produce in each case. Compare with Poe's method in "The Bells." (See *Book One*, p. 238.)
4. Name the "varied carols" which Whitman heard. Compare his poem in this respect with Sandburg's and with Finley's.

5. What is the chief difference between Finley's poem and the other three?
6. Does Sandburg like the people about whom he writes? Read the sentence which shows his attitude. Did the other three poets like the workers? Read lines which answer this question.
7. Explain:
   a. "Each singing what belongs to him or her and to no one else."
   b. "How the hands of the work gangs smelled of hope."
   c. "The night watchmen stuff their pipes with dreams."
   d. "Something attempted, something done,
   Has earned a night's repose."
   e. "And never one blow gone wrong."
8. How does debt interfere with a person's looking the whole world in the face?
9. What lesson did the village blacksmith teach? Read the lines in Dresbach's "The Builder," below, which express much the same thought.
10. Point out figures of speech which you like in these poems; read the lines you like best in each of them.
11. Do these four authors look on work in the same way? Read the lines which support your opinion.
12. POEMS ON WORK (add others to the list and bring to class the one you like best). — 1. "The Blacksmith," J. Masefield. 2. "The Song of the Shirt," T. Hood. 3. "Factories," M. Widdemer. 4. "The Singing Man," J. P. Peabody. 5. "The Symphony," S. Lanier. 6. "The Flower Factory," F. Wilkinson, in M. Wilkinson's *New Voices*, 231.

5. THE BUILDER

GLENN WARD DRESBACH

The greatest contribution of Theodore Roosevelt to the American people was himself. The same may be said of Lincoln, Washington, and Franklin. The fact is we are all makers and builders and the most important structure we raise is not made of wood, brick, stone, or steel. Our most important structure is character; it is the result of our daily thoughts, dreams, and deeds. How is this truth brought out in the next two poems?

How great will be the thing that he builds?
Not quite so great as his dreams are great;

Not quite so high as his hopes are high;
And long he must build and wait.
But the glory is, if he builds what he can,
That all the while he is building a Man!

And what will he build as the years go by.
With stone or steel or the might of a theme?
No mansion, we know, can he ever build
Out of a cottage dream.
But the glory is, if he builds at all,
That his soul can look o'er the highest wall!

6. A BUILDER'S LESSON

JOHN BOYLE O'REILLY

"How shall I a habit break?"
As you did that habit make.
As you gathered, you must lose;
As you yielded, now refuse.

Thread by thread the strands we twist
Till they bind us, neck and wrist;
Thread by thread the patient hand
Must untwine, ere free we stand.
As we builded, stone by stone,
We must toil, unhelped, alone,
Till the wall is overthrown.

But remember, as we try,
Lighter every test goes by;
Wading in, the stream grows deep
Toward the centre's downward sweep;
Backward turn, each step ashore
Shallower is than before.

Ah, the precious years we waste
Levelling what we raised in haste:
Doing what must be undone
Ere content or love be won!
First, across the gulf we cast
Kite-borne threads, till lines are passed,
And habit builds the bridge at last!

CLASS ACTIVITIES

1. Tell which of these poems is the easier to understand. What makes it simpler than the other poem—its vocabulary, its sentence structure, or its thought?
2. In "A Builder's Lesson" the poet makes a striking use of contrast, or antithesis. By this is meant that he expresses his thought by using in pairs words, phrases, and clauses whose meaning is opposite. For example, in the first two lines, he uses "break" and "make"—the first word means the exact opposite of the second and the use of the two together emphasizes the way to get rid of a bad habit. Again, in line three, we find the contrasting words, "gathered" and "lose." Go through the poem and make a list of all the antitheses you can find. Why is the use of contrast especially fitting in "A Builder's Lesson"?
3. Why cannot that which one builds be "quite so great as his dreams are great"? Does this contradict what Braley says in the last two lines of "The Thinker," p. 124? Note also question No. 8 on p. 125.
4. Does Dresbach mean that one should not have great dreams? Read the two lines in the second stanza which help you answer this question.
5. Explain the last two lines in both of the stanzas of "The Builder." Do they express the same thought?
6. Can a person build a habit? How? Tell about a habit you built.
7. Which stanza best sums up the main idea in "The Builder's Lesson"? See how few times you need to read this stanza before you can repeat it from memory.
8. Tell how the two poems explain the statements on p. 165.
9. *For a volunteer.* Read and report on four rules to follow in forming a habit. (See H. D. Kitson, *How to Use Your Mind*, 64–72.)

CLASS–LIBRARY READINGS

THE MAKERS AND THE BUILDERS

1. "The Thought and the Stone," M. E. Waller, in *The Joy in Work*, 111–120.
2. "Lines on the Death of a Worthy Shoemaker," E. Mott, in *Vocational Reader*, 170–171.
3. "The Flag Makers," F. K. Lane, *ibid.*, 239–242.
4. "Business," S. W. Foss, *ibid.*, 242–244.
5. "Henry Wadsworth Longfellow, the Children's Poet," in *Makers of Our History*, 227–236.
6. "The Story of the Panama Canal," *Wonder Book of Knowledge*, 17–40.
7. "The Story of the Tunnels under the Hudson River," *ibid.*, 492–504.
8. "The Oldest of the Arts," *Compton's Pictured Encyclopedia*, 1 : 176–190.
9. "The Great Roosevelt Dam," *ibid.*, 1 : 200–203.
10. "The Engineer — Master Builder of Civilization," *ibid.*, 3 : 1149–1150.
11. "Modern Titans with Which Man Moves Mountains," *ibid.*, 3 : 1211–1212.
12. "Building a Giant with Bones of Steel," *ibid.*, 2 : 528–532; *Book of Knowledge*, 1 : 19–31.
13. "Tragedy and Triumph of the Panama Canal," *Compton's Pictured Encyclopedia*, 6 : 2650–2663; *World Book*, 6 : 4471–4474; *Book of Knowledge*, 18 : 5631–5638.
14. "How Men Pierce Mountains and Burrow under Rivers and Cities," *Compton's Pictured Encyclopedia*, 8 : 3550–3552; *Book of Knowledge*, 20 : 6203–6214.
15. "The Bridge-Builder," *Careers of Danger and Daring*, 173–208.

GENERAL REVIEW OF MAKING AND BUILDING

READING HABITS

(To be read together by the teacher and the class)

One of the great advantages of an encyclopedia is that it contains information on almost any subject. An equally great advantage is that this information is arranged so that a person can find what he wants without reading the entire encyclopedia. Indeed, he can

usually find the information he desires very, very quickly. All he needs to do is to turn to the volume containing the words which begin with the same initial letter as does the topic in which he is interested and there, in alphabetical order, he will find his subject.

True, the article may be a very long one and the information he seeks may concern only one part of the entire subject. The reading of the article will consume much time, therefore, unless he has acquired one of the most helpful of reading skills, namely, the skill to go through an article quickly when looking for particular or specific facts. When a person is in search of such information, it is no more necessary for him to read the entire article carefully than it would be for him to read the entire encyclopedia if he wanted to learn who the Zulus are and where they live.

What then is the best way to read when one wants to find specific information in the shortest possible time?

There is probably no one answer which can be given to this question. Good readers do not always read in the same way in this respect, any more than they always read alike in other respects.

In general, however, it may be said that when you are hunting for particular information, as you were directed to do in the first reading of "Alone on an Island" (p. 135), you should not try to read every sentence in the selection. Instead, it is better, if you are looking only for certain facts, to read the first and the last sentences in each paragraph, skimming hastily over all that comes between them. Occasionally it is better to read the first two and the last two sentences in the paragraph; after a little practice you will have little trouble in deciding what is best with each paragraph.

As soon as you find what you are looking for, however, slow up at once and read carefully the part of the selection which discusses this item. Then proceed as before — reading and skimming — until you again find an object of search.

Try this method of reading "Alone on an Island," p. 135. Then ask your teacher to give you a few problems of this kind in some chapters which you have not yet read in your history, geography, or science books. It will add to the interest if you will keep a record of the time it takes you to find the information called for.

QUESTIONS AND PROBLEMS

1. All inventions had their origin in some human problem. Name four inventions which show the truth of this statement.
2. Inventions are the results of dreams. Give illustrations.

3. The reaper was the emancipator of the farmer. From what did the reaper free the farmer?
4. Every invention emancipates some one. Give four examples.
5. Name four inventions which make housework easier. Which of these has helped your mother most?
6. What is the chief difference between the way things are made nowadays and the way in which they were made two hundred years ago? How has this change in industry affected the cost of goods? the position of the laborer? the organization of industry? (See H. C. Hill, *Community Life and Civic Problems*, 348–352.)
7. What is the chief difference between work and drudgery? What satisfaction does one get from good work? From a poem in Section D read the stanza which best expresses your answer.
8. What is the greatest engineering feat which has been carried out in the last ten years in your community? in your State? Tell about any enterprise of the sort which is planned or needed.

ROUNDING OUT THE MEANING OF MAKING AND BUILDING

1. Some inventions have been the result of deliberate intention and study; some have come from accident; some have developed from close observation; some have been the product of a combination of these factors. Name inventions which have come in each of these four ways.
2. Tell the class about a portion of the book you have been reading (see p. 108) which would fit into one of the sections in this unit. Read aloud the most interesting page of this portion.
3. Make a list of the inventions described in "Conquering Nature" and "Making and Building."
4. Let a committee work out a report on the inventions treated in "Making and Building" similar to the report suggested in number 3, p. 100.
5. Let a committee work out a report on this unit similar to the one suggested in number 4, p. 100.
6. Let a committee collect and tabulate the votes of the class on the different inventions which have so far been studied, each pupil voting on the invention which was most complicated, the one which has made the greatest change or revolution in the way we live, and the one which has benefited the largest number of people. Arrange the report in this way:

NAME OF INVENTION	MOST COMPLICATED	MOST REVOLUTIONARY	MOST BENEFICIAL

Let those who differ in a striking way from the majority of the class give the reasons for their votes.

7. Let a committee score the votes of the class upon the selections in "Making and Building" on the following points: (1) the most interesting story, (2) the most instructive selection, (3) the poem most enjoyed, (4) the reading most disliked. Arrange the report, as shown in number 6, giving each column its appropriate heading. Let the chairman of the committee ask members of the class to tell their reasons for their opinions, calling especially on pupils who may have listed as "most interesting," or "most enjoyed," what other members of the class considered "most disliked."

TOPICS FOR REPORTS OR COMPOSITIONS

1. What I should like to invent.
2. One invention we need at home.
3. The first gun (a story).
4. The first rocking-chair (a story).
5. Inventions needed in our school building.
6. The use of tractors in farm work.
7. How a pin (or shoe) is made.
8. The most difficult task in bridge-building.
9. Why I should like to be a civil engineer.
10. What I learned from a shoemaker.

QUESTIONS FOR DEBATE

1. *Resolved*, That the printing-press has contributed more to man's welfare than has the automobile.

2. *Resolved*, That all buildings should be limited in height to twice the width of the street they face.

UNIT THREE

BUYING AND SELLING

THE LADY LOOKED AT ME RATHER STRANGELY, BUT MEASURED OFF FIVE YARDS OF TURKEY RED CALICO.

[*See p.* 191]

BUYING AND SELLING

The buyer hath need of a thousand eyes, the seller wants but one.

—Benjamin Franklin.

Commerce and industry are the best mines of the nation.

—George Washington.

BUSINESS

To many people the word "business" suggests nothing but humdrum and monotonous work. To them "buying and selling" means only the measuring of calico and gingham, the handling of corn, wheat, and potatoes, or the posting of ledgers, the making of balance sheets, and the keeping of accounts. They have never seen the romance and fascination of daily tasks.

A century and a half ago most people saw little beauty in clouds and sunsets and flowers, and they never dreamed of using such material as subjects for poems and stories. In their minds poetry and art dealt only with knights and ladies, kings and queens, courts and warfare. It was of such an individual that Wordsworth said,

> *"A primrose by a river's brim,*
> *A yellow primrose was to him,*
> *And it was nothing more."*

But beauty lay in the primrose and the daffodil all the while, and in time the poets and the artists pointed out the glory of the commonplace so that all could behold it.

Many people regard the great world of business as lacking in human interest. But adventure is there, too. There are fortunes to be fought for, games to be won. Sometimes human lives are staked and lost. Poets and story-tellers have seen the romance which lies behind the activities of department stores, the work of banks, and the conduct of commerce, and have given it to us in the form of poems and stories.

III. BUYING AND SELLING

A. Bartering, Trading, Shopping

		PAGE
1. The Pine-Tree Shillings	*Nathaniel Hawthorne*	180
2. The Genuine Mexican Plug	*Mark Twain*	184
3. A Piece of Red Calico	*Frank R. Stockton*	187
4. The Horse Trade	*John Luther Long*	193

B. The Worth of One's Money

1. The Whistle	*Benjamin Franklin*	206
2. Wants as a Factor in Determining Values	*Leverett S. Lyon*	208
3. Contentment	*Oliver Wendell Holmes*	213
4. Moses Sells the Colt	*Oliver Goldsmith*	215
5. Barter	*Sara Teasdale*	218

C. The Commerce of To-day

1. Commerce	*C. Henry*	220
2. Rushing Freight to New York	*Sylvester Baxter*	221
3. My Financial Career	*Stephen Leacock*	228
4. Cargoes	*John Masefield*	231
5. The Romance of a Busy Broker	*O. Henry*	232

CHOOSE A BOOK

1. Ferber, Edna, *Emma McChesney & Co.* Stokes.
   Probably the best stories of the travelling salesman (in this instance, a woman) in our literature. *Roast Beef Medium* consists of earlier episodes in the life of the heroine, Emma McChesney.

2. Hovey, Carl, *The Life Story of J. Pierpont Morgan.* London, Walter Heineman.
   The biography of one of the leading American bankers in the last half century related with many graphic incidents and anecdotes.

3. Hubbard, Elbert, *Little Journeys to the Homes of Great Business Men.* Roycrofters, East Aurora, New York.
   Biographical sketches of such notable leaders in business as Stephen Girard, Mayer A. Rothschild, Philip D. Armour, Peter Cooper, George Peabody, and Alexander T. Peabody. Emphasis is laid upon character and personality and much use is made of anecdote.

4. Hungerford, Edward, *The Romance of a Great Store.* New York, Robert McBride & Co.
   The story of the origin, development, and activities of one of the greatest department stores in New York City.

5. Leacock, Stephen, *The Methods of Mr. Sellyer.* Lane.
   A humorous story of unusual methods of salesmanship successfully employed by the hero, Mr. Sellyer.

6. Lubbock, Sir John, *A Short History of Coins and Currency.* Dutton.
   The origin of money, the weights of coins, bank notes and banking.

7. Luther, Agnes Vinton, *Trading and Exploring.* American Book Company.
   Trading and exploring from the time of the ancient Babylonians to the days of Columbus and Vasco da Gama.

8. Maxwell, William, *The Training of a Salesman.* Lippincott.
   The training and activities required of modern salesmen.

9. Moody, John, *The Masters of Capital.* Yale University Press.
   An historical account of the building of great fortunes in America since the Civil War.

10. Samuel, Elizabeth I., *The Story of Gold and Silver.* Penn.
The romance of the discovery, mining, and uses of the precious metals.

11. Van Antwerp, William Clarkson, *The Stock Exchange from Within.* Doubleday.
A vivid description of the workings and management of the stock exchange.

12. Werthner, William B., *How Man Makes Markets.* Macmillan.
The part which advertising plays in modern business, with illustrations of the many kinds of advertisements used to develop markets.

A. BARTERING, TRADING, SHOPPING

1. THE PINE-TREE SHILLINGS

NATHANIEL HAWTHORNE

See how quickly you can find and name the two main parts into which the story is divided.

Captain John Hull, the mint-master of Massachusetts, coined all the money that was made there. This was a new line of business; for in the earlier days of the colony the coinage consisted of gold and silver money of England, Portugal, and Spain. These coins being scarce, the people were often forced to barter their commodities instead of selling them.

For instance, if a man wanted to buy a coat, he perhaps exchanged a bearskin for it. If he wished for a barrel of molasses, he might purchase it with a pile of pine boards. Musket bullets were used instead of farthings. The Indians had a sort of money, called wampum, which was made of clam-shells; and this strange specie was likewise taken in payment of debts by the English settlers. Bank bills had never been heard of. There was not money enough of any kind, in many parts of the country, to pay the salaries of the ministers; so that they sometimes had to take quintals of fish, bushels of corn, or cords of wood, instead of silver or gold.

As the people grew more numerous and their trade one with another increased, the want of money was still more

sensibly felt. To supply the demand, the General Court passed a law for establishing a coinage of shillings, sixpences, and threepences. Captain John Hull was appointed to manufacture this money, and was to have about one shilling out of every twenty to pay him for the trouble of making them.

Hereupon all the old silver in the colony was handed over to Captain Hull. The battered silver cans and tankards, and silver buckles, and broken spoons, and silver buttons of worn-out coats, and silver hilts of swords that had figured at court, — all such curious old articles were doubtless thrown into the melting-pot together. But by far the greater part of the silver consisted of bullion from the mines of South America, which the English buccaneers, who were little better than pirates, had taken from the Spaniards and brought to Massachusetts.

All of this old and new silver being melted down and coined, the result was an immense amount of splendid shillings, sixpences, and threepences. Each had the date, 1652, on the one side, and the figure of a pine-tree on the other. Hence they were called pine-tree shillings. And for every twenty shillings that he coined, you will remember, Captain John Hull was entitled to put one shilling into his own pocket.

The magistrates soon began to suspect that the mint-master would have the best of the bargain. They offered him a large sum of money if he would but give up that twentieth shilling which he was continually dropping into his own pocket. But Captain Hull declared himself perfectly satisfied with the shilling. And well he might be; for so diligently did he labor that in a few years his pockets, his money-bags, and his strong-box were overflowing with pine-tree shillings.

When the mint-master had grown very rich, a young man, Samuel Sewell by name, came courting his only daughter. His daughter — whose name I do not know, but we will call her Betsey — was a fine, hearty damsel, by no means so slender as some young ladies of our own days. On the con-

trary, having always fed heartily on pumpkin pies, doughnuts, Indian puddings, and other Puritan dainties, she was as round and plump as a pudding herself.

With this round, rosy Miss Betsey Samuel Sewell fell in love. As he was a young man of good character, industrious in his business, and a member of the church, the mint-master very readily gave his consent. "Yes, you may take her," said he, in his rough way; "and you'll find her a heavy burden enough."

On the wedding-day we may suppose that honest John Hull dressed himself in a plum-colored coat, all the buttons of which were made of pine-tree shillings. The buttons of his waistcoat were sixpences. Thus attired, he sat with great dignity in his armchair; and, being a portly old gentleman, he completely filled it from elbow to elbow. On the opposite side of the room, between her bridemaids, sat Miss Betsey. She was blushing with all her might, and looked like a full-blown peony or a great red apple.

There, too, was the bridegroom, dressed in a fine purple coat and gold-lace waistcoat, with as much other finery as the Puritan laws and customs would allow him to put on. His hair was cropped close to his head, because Governor Endicott had forbidden any man to wear it below the ears. But he was a very personable young man; and so thought the bridemaids and Miss Betsey herself.

The mint-master also was pleased with his new son-in-law, especially as he had courted Miss Betsey out of pure love, and had said nothing at all about her portion, or dowry. So, when the marriage ceremony was over, Captain Hull whispered a word to two of his menservants, who immediately went out, and soon returned, lugging in a large pair of scales. They were such a pair as wholesale merchants use for weighing bulky commodities; and quite a bulky commodity was now to be weighed in them.

"Daughter Betsey," said the mint-master, "get into one side of these scales."

Miss Betsey — or Mrs. Sewell, as we must now call her — did as she was bid, like a dutiful child, without any question of the why and wherefore. But what her father could mean, unless to make her husband pay for her by the pound (in which case she would have been a dear bargain), she had not the least idea.

"And now," said honest John Hull to the servants, "bring that box hither."

The box to which the mint-master pointed was a huge, square, iron-bound, oaken chest; it was big enough for four or five children to play hide and seek in. The servants tugged with might and main, but could not lift this enormous receptacle, and were finally obliged to drag it across the floor.

Captain Hull then took a key from his girdle, unlocked the chest, and lifted its ponderous lid. Behold, it was full to the brim of bright pine-tree shillings, fresh from the mint; and Samuel Sewell began to think that his father-in-law had got possession of all the money in the Massachusetts treasury. But it was only the mint-master's honest share of the coinage.

Then the servants, at Captain Hull's command, heaped double handfuls of shillings into one side of the scales, while Betsey remained in the other. Jingle, jingle, went the shillings, as handful after handful was thrown in, till, plump and ponderous as she was, they fairly weighed the young lady from the floor.

"There, son Sewell!" cried the honest mint-master; "take these shillings for my daughter's portion. Use her kindly and thank Heaven for her. It is not every wife that's worth her weight in silver!"

CLASS ACTIVITIES

1. Enterprise for a volunteer committee: Dramatize in pantomime (without words) the courting and the wedding of Miss Betsey.
2. Did Captain Hull get his money honestly? Give reasons for your answer.
3. If money did not exist, mention articles or goods which you could give in exchange for groceries, for a pair of shoes, and for ad-

mission to a motion-picture theatre; be sure to name articles which the proprietor would probably accept.

4. Explain the disadvantages of barter. Has it any advantages? Tell about something you once bartered.
5. What is money? Name three commodities other than gold, silver, nickel, copper, and paper, which have been used as money. (Look up "money" in the encyclopedia or in one of the references on p. 205.)
6. *Volunteer research problem:* How money is made. Tell whether governments are paid for making money in some such way as Captain Hull was paid.
7. *Special report for a volunteer:* Explain the services of money. (H. C. Hill, *Community Life and Civic Problems*, 366–367.)
8. Problem: How much would you be worth at your weight in silver? at your weight in gold? How can you find out?
9. What do you like best about this selection — the narrative, the humor, or the style?

2. THE GENUINE MEXICAN PLUG

MARK TWAIN

I resolved to have a horse to ride. I had never seen such wild, free, magnificent horsemanship outside of a circus as these picturesquely-clad Mexicans and Americans displayed every day. How they rode! Leaning just gently forward out of the perpendicular, easy and graceful, with broad slouch-hat brim blown square up in front, they swept through the town like the wind! The next minute they were only a sailing puff of dust on the far desert. I had quickly learned to tell a horse from a cow, and was full of anxiety to learn more. I resolved to buy a horse.

While the thought was rankling in my mind the auctioneer came scurrying through the plaza on a black beast that had as many humps and corners on him as a dromedary; but he was "going, going, at twenty-two! — horse, saddle, and bridle at twenty-two dollars, gentlemen!" and I could hardly resist.

A man whom I did not know (he turned out to be the auc-

tioneer's brother) noticed the wistful look in my eye, and observed that that was a very remarkable horse to be going at such a price; and added that the saddle alone was worth the money. I said I had half a notion to bid. Said he:

"I know that horse — know him well. You are a stranger, I take it, and so you might think he was an American horse, but I assure you he is not. He is nothing of the kind; but — excuse my speaking in a low voice, other people being near — he is, without the shadow of a doubt, a Genuine Mexican Plug!"

I did not know what a Genuine Mexican Plug was, but there was something about this man's way of saying it, that made me swear inwardly that I would own a Genuine Mexican Plug, or die.

"Has he any other — er — advantages?" I inquired, suppressing what eagerness I could.

He hooked his forefinger in the pocket of my army-shirt, led me to one side, and breathed in my ear these words:

"He can outbuck anything in America!"

"Going, going, going — at *twent-ty*-four dollars and a half, gen —" "Twenty-seven!" I shouted, in a frenzy.

"And sold!" said the auctioneer, and passed over the Genuine Mexican Plug to me.

I could scarcely contain my exultation. I paid the money, and put the animal in a neighboring livery-stable to dine and rest himself.

In the afternoon I brought the creature into the plaza, and certain citizens held him by the head, and others by the tail, while I mounted him. As soon as they let go, he placed all his feet in a bunch together, lowered his back, and then suddenly arched it upward, and shot me straight into the air a matter of three or four feet! I came as straight down again, lit in the saddle, went instantly up again, came down almost on the high pommel, shot up again, and came down on the horse's neck — all in the space of three or four seconds.

Then he rose and stood almost straight up on his hind

feet, and I, clasping his lean neck desperately, slid back into the saddle, and held on. He came down, and immediately hoisted his heels into the air, delivering a vicious kick at the sky, and stood on his forefeet. And then down he came once more, and began the original exercise of shooting me straight up again.

The third time I went up I heard a stranger say:

"Oh, *don't* he buck, though!"

While I was up, somebody struck the horse a sounding thwack with a leathern strap, and when I arrived again the Genuine Mexican Plug was not there. A Californian youth chased him up and caught him, and asked if he might have a ride. I granted him that luxury. He mounted the Genuine, got lifted into the air once, but sent his spurs home as he descended, and the horse darted away like a telegram. He soared over three fences like a bird, and disappeared down the road toward the Washoe Valley.

I sat down on a stone with a sigh, and by a natural impulse one of my hands sought my forehead, and the other the base of my stomach. I still needed a hand or two to place elsewhere. Pen cannot describe how I was jolted up. Imagination cannot conceive how disjointed I was — how internally, externally, and universally I was unsettled, mixed up, and ruptured. There was a sympathetic crowd around me, though.

One elderly-looking comforter said:

"Stranger, you've been taken in. Everybody in this camp knows that horse. Any child, any Injun, could have told you that he'd buck; he is the very worst devil to buck on the continent of America. You hear *me*. I'm Curry. *Old* Curry. Old *Abe* Curry. And moreover, he is a simon-pure, out-and-out, genuine old Mexican plug, and an uncommon mean one at that, too. Why, you turnip, if you had laid low and kept dark, there's chances to buy an *American* horse for mighty little more than you paid for that bloody old foreign relic."

I gave no sign; but I made up my mind that if the auctioneer's brother's funeral took place while I was in the Territory I would postpone all other recreations and attend it.

CLASS ACTIVITIES

1. Did Mark Twain get the worth of his money?
2. Read the passage which tells why Mark wanted to buy a horse.
3. Explain Mark's original idea of a Mexican plug. What is your notion of such a horse?
4. Volunteer work: Draw a picture of Mark riding the Mexican plug.
5. Name conditions under which it is foolish to buy articles at an auction or a "bargain" sale.
6. What makes the fun in this selection? Point out three details as proof of your answer.

3. A PIECE OF RED CALICO

FRANK R. STOCKTON

I was going into town the other morning when my wife handed me a little piece of red calico, and asked me if I would have time during the day, to buy her two yards and a half of calico like that. I assured her that it would be no trouble at all; and putting the piece of calico in my pocket, I took the train for the city.

At lunch-time I stopped in at a large dry-goods store to attend to my wife's commission. I saw a well-dressed man walking the floor between the counters, where long lines of girls were waiting on much longer lines of customers, and asked him where I could see some red calico.

"This way, sir," and he led me up the store. "Miss Stone," said he to a young lady, "show this gentleman some red calico."

"What shade do you want?" asked Miss Stone.

I showed her the little piece of calico that my wife had given me. She looked at it and handed it back to me. Then

she took down a great roll of red calico and spread it out on the counter.

"Why, that isn't the shade!" said I.

"No, not exactly," said she; "but it is prettier than your sample."

"That may be," said I; "but, you see, I want to match this piece. There is something already made of this kind of calico, which needs to be made larger, or mended, or something. I want some calico of the same shade."

The girl made no answer, but took down another roll.

"That's the shade," said she.

"Yes," I replied, "but it's striped."

"Stripes are more worn than anything else in calicoes," said she.

"Yes; but this isn't to be worn. It's for furniture, I think. At any rate, I want perfectly plain stuff, to match something already in use."

"Well, I don't think you can find it perfectly plain, unless you get Turkey red."

"What is Turkey red?" I asked.

"Turkey red is perfectly plain in calicoes," she answered.

"Well, let me see some."

"We haven't any Turkey red calico left," she said, "but we have some very nice plain calicoes in other colors."

"I don't want any other color. I want stuff to match this."

"It's hard to match cheap calico like that." she said, and so I left her.

I next went into a store a few doors farther up Broadway. When I entered I approached the "floor-walker," and, handing him my sample, said:

"Have you any calico like this?"

"Yes, sir," said he. "Third counter to the right."

I went to the third counter to the right, and showed my sample to the salesman in attendance there. He looked at it on both sides. Then he said:

"We haven't any of this."

"That gentleman said you had," said I.

"We had it, but we're out of it now You'll get that goods at an upholsterer's."

I went across the street to an upholsterer's.

"Have you any stuff like this?" I asked.

"No," said the salesman. "We haven't. Is it for furniture?"

"Yes," I replied.

"Then Turkey red is what you want."

"Is Turkey red just like this?" I asked.

"No," said he; "but it's much better."

"That makes no difference to me," I replied. "I want something just like this."

"But they don't use that for furniture," he said.

"I should think people could use anything they wanted for furniture," I remarked, somewhat sharply.

"They can, but they don't," he said quite calmly. "They don't use red like that. They use Turkey red."

I said no more, but left. The next place I visited was a very large dry-goods store. Of the first salesman I saw, I inquired if they kept red calico like my sample.

"You'll find that on the second story," said he. I went up-stairs. There I asked a man:

"Where will I find red calico?"

"In the far room to the left. Right over there." And he pointed to a distant corner.

I walked through the crowds of purchasers and salespeople, and around the counters and tables filled with goods, to the far room to the left. When I got there I asked for red calico.

"The second counter down this side," said the man.

I went there and produced my sample. "Calicoes down-stairs," said the man.

"They told me they were up here," I said.

"Not these plain goods. You'll find 'em down-stairs at the back of the store, over on that side."

I went down-stairs to the back of the store.

"Where will I find red calico like this?" I asked.

"Next counter but one," said the man addressed, walking with me in the direction pointed out.

"Dunn, show red calicoes."

Mr. Dunn took my sample and looked at it.

"We haven't this shade in that quality of goods," he said.

"Well, have you it in any quality of goods?" I asked.

"Yes; we've got it finer." And he took down a piece of calico, and unrolled a yard or two of it on the counter.

"That's not the shade," I said.

"No," said he. "The goods is finer and the color's better."

"I want it to match this," I said.

"I thought you weren't particular about the match," said the salesman. "You said you didn't care for the quality of the goods, and you know you can't match goods without taking into consideration both quality and color. If you want that quality of goods in red, you ought to get Turkey red."

I did not think it necessary to answer this remark, but said:

"Then you've got nothing to match this?"

"No, sir. But perhaps they may have it in the upholstery department, in the sixth story."

So I got in the elevator and went up to the top of the house.

"Have you any red stuff like this?" I said to a young man.

"Red stuff? Upholstery department — other end of this floor."

I went to the other end of the floor.

"I want some red calico," I said to a man.

"Furniture goods?" he asked.

"Yes," said I.

"Fourth counter to the left."

I went to the fourth counter to the left, and showed my sample to a salesman. He looked at it, and said:

"You'll get this down on the first floor — calico department."

I turned on my heel, descended in the elevator, and went

out on Broadway. I was thoroughly sick of red calico. But I determined to make one more trial. My wife had bought her red calico not long before, and there must be some to be had somewhere. I ought to have asked her where she bought it, but I thought a simple little thing like that could be bought anywhere.

I went into another large dry-goods store. As I entered the door a sudden tremor seized me. I could not bear to take out that piece of red calico. If I had had any other kind of a rag about me — a pen-wiper or anything of the sort — I think I would have asked them if they could match that.

But I stepped up to a young woman and presented my sample, with the usual question.

"Back room, counter on the left," she said.

I went there.

"Have you any red calico like this?" I asked of the lady behind the counter.

"No, sir," she said, "but we have it in Turkey red."

Turkey red again! I surrendered.

"All right," I said, "give me Turkey red."

"How much, sir?" she asked.

"I don't know — say five yards."

The lady looked at me rather strangely, but measured off five yards of Turkey red calico. Then she rapped on the counter and called out "Cash!" A little girl, with yellow hair in two long plaits, came slowly up. The lady wrote the number of yards, the name of the goods, her own number, the price, the amount of the bank-note I handed her, and some other matters, probably the color of my eyes, and the direction and velocity of the wind, on a slip of paper. She then copied all this in a little book which she kept by her. Then she handed the slip of paper, the money, and the Turkey red to the yellow-haired girl. This young girl copied the slip in a little book she carried, and then she went away with the calico, the paper slip, and the money.

After a very long time — during which the little girl prob-

ably took the goods, the money, and the slip to some central desk, where the note was received, its amount and number entered in a book, change given to the girl, a copy of the slip made and entered, girl's entry examined and approved, goods wrapped up, girl registered, plaits counted and entered on a slip of paper and copied by the girl in her book, girl taken to a hydrant and washed, number of towel entered on a paper slip and copied by the girl in her book, value of my note and amount of change branded somewhere on the child, and said process noted on a slip of paper and copied in her book — the girl came to me, bringing my change and the package of Turkey red calico.

I had time for but very little work at the office that afternoon, and when I reached home, I handed the package of calico to my wife. She unrolled it and exclaimed:

"Why, this doesn't match the piece I gave you!"

"Match it!" I cried. "Oh, no! it doesn't match it. You didn't want that matched. You were mistaken. What you wanted was Turkey red — third counter to the left. I mean Turkey red is what they use."

My wife looked at me in amazement, and then I detailed to her my troubles.

"Well," said she, "this Turkey red is a great deal prettier than what I had, and you've got so much of it that I needn't use the other at all. I wish I had thought of Turkey red before."

"I wish from my heart you had," said I.

CLASS ACTIVITIES

1. Tell the story of the author's experience in buying a piece of red calico.
2. Read the funniest passage in the selection. What makes it funny? Is it funnier than "Hanging a Picture," *Book One*, p. 59?
3. Why did the clerk who sold the calico to Mr. Stockton look at him "rather strangely"?
4. Tell about the most amusing experience you ever had in a store.
5. Tell a story about a shopping trip of your father or uncle.

4. THE HORSE TRADE

JOHN LUTHER LONG

In colonial days persons who wished to try their fortunes in America but who did not have sufficient money to pay their fares across the ocean used to bind themselves to give a number of years of service in return for their passage. Upon their arrival these persons were sold at auction to the highest bidder. They were known as redemptioners, or indentured servants. During the period of their service, they were practically the slaves of their masters, and could be sold and traded in much the same way as other kinds of property.

I. AT THE GOLDEN SWAN IN 1740

"Ach! just look at her eye — look at her eye, Heifert Papen — what an eye!"

"Nay, then, look at her teeth, Master Schneider, if thou wantest something to look at."

"Old, Heifert — old!" Schneider laughed derisively. "Well, then, *how* old? She's as brisk as a yearling! Her eye tells thee that. She's not above six. I'll swear to that. I challenge thee to look at her eye!"

"And the off foreleg? Dost challenge me there also?"

"Why, then, laugh, Heifert Papen, if it please thee to do so. Yet it is a libel — a libel on as fair a beast as ever stepped. Never yet was one bone of her splint or spavin — else I know not what they be. But, to any reasonable man, that eye is marvellous."

Johannes Schneider was the shrewdest German in all Lancaster County, and Heifert Papen the jolliest. And they, or, rather, the former was trying to effect a horse trade — Johannes's spavined mare for Heifert's glossy black stallion. And it was at the coffee-house named the Golden Swan at Philadelphia in the year 1740.

Hither Schneider had come for business and Papen for entertainment; and without an idea of sacrificing his handsome

stallion, he was yet bandying words in a way not without its peril when so capable a man at a horse trade as Schneider was concerned.

As the two men stood violently bartering, a girl of perhaps fourteen years came out of the coffee-house and stood at the door unseen by them. She was dressed in coarse linsey-woolsey, her hair hung in two plaits at the back of her ears, her shoes were of cowhide with wooden soles and copper buckles. She stood listening a moment and fidgeting uneasily with her apron; then, upon the heels of Schneider's most violent declaration, she broke out:

"Nay, nay, master, she *is* spavined. The horse-doctor said so."

Both men were taken by surprise.

"Aha, ha ha! Oh! — aha, ha ha!" roared Papen. "Oh! — Now, by the luck of the Schneiders, this is most unfortunate. And by the same it is an honest little wench — aye, and a comely. If, my countryman, thou hadst such an one to throw into the bargain to give it some weight — I am in bonds to find Frau Papen a daughter — I know not but this tow-headed wench might serve. Come here, little one; it is worthy to be in the company of one who shames the devil thus by telling the truth."

When she came to him, he put his stubby forefinger under her chin, turning her face upward; it glowed with a confident smile.

But Schneider, who had recovered from his astonishment, now came forward with an angry face and uplifted hand.

"Go! go! thou unseemly little busybody! else I'll ——"

The little girl cowered behind Papen.

"What! For shame! aha, ha ha! What is this world coming to when Truth must hide behind a fat Dutchman!"

Schneider still advanced, and Papen's waggery changed to rage.

"Nay, then, if thou strikest her I'll strike thee — aye, thee, Master Schneider!"

The valiant little Dutchman threw out his chest, advanced one foot, put up his fists, and then broke down and laughed till he was bent double.

"A bow-legged Dutchman like me! Aha, ha ha! Oh, Master Schneider, thou wast afeared! Oh! — Oh!"

He brought himself to decorum with a stamp of his foot, pulled his long waistcoat into place, and, turning to the other man, indicated the end of hostilities with a friendly —

"Well?"

Meanwhile the horse-dealer's wrath had changed to his more natural cunning; he had brought the girl as well as the mare to town to sell, and — Heifert Papen was a very jolly Dutchman indeed; but not a wise one. So he managed to laugh with Papen, and to say, as he prodded his ribs:

"Ah! thou'rt a rare one, Heifert! Quarrel about a meddlesome little wench — two of the best men in Pennsylvania! Nay, nay! But now I'll prove thee. If — say *if* the wench could be bartered, what wouldst thou give for her? Eh?"

Papen stared.

"Ay, *if;* not everybody loves the truth as thou dost, Papen. If I would part with her what wouldst thou give?"

"This is poor foolery, Master Schneider. It ill becomes thee to make such sport of thy child."

Schneider laughed.

"Looks she like me, Papen?"

It was Papen's turn to laugh now.

"No; nor ever shall! God has not been so unkind to her."

Schneider came closer and put his hand to his mouth.

"Nay, then, be a fool if thou wilt; but I have her indenture here." He tapped the breast of his coat.

Papen turned to the little girl almost savagely.

"Is this true, wench, that he hath bought thee? — and now would sell thee again?"

"I — know not," she faltered, "I know not."

"Know not — know not whether thou art his child or his sl — bond-servant?" cried Papen fiercely.

"No, master; but I think I be not his child; for he is cruel with me."

This only made the horse-dealer, who had now the point of vantage, smile more broadly.

"So, so," muttered the other; "she is a redemptioner! It were an infinite pity to let her go back with the brute — to beatings and lyings. I vow she's as gentle as comely — the little baggage! How long hath she yet to serve, Master Schneider?" he asked suddenly.

Schneider came close and whispered cunningly: "As long as thou wilt. She knows not and hath not cared to know."

"How? There's crime here! Thou knowest the law well, Johannes Schneider."

"Calm thyself, friend; she hath yet about five years to serve to her twenty. But when shall the term begin? that is the rub; thereupon the law saith nothing. I took her as a babe; none else would have her, and the mother and father were dead. Shall a man have no hire for the bringing up of an infant?"

"Nay; not for such as she hath had of thee."

"Well, as for that, Master Papen," said the horsetrader, grimly, "she got the best I had. Thou seest she will not lie. This is not the first trade of horses she hath spoiled by telling the truth. 'Tis true enough, Heifert Papen, that I like it not exactly. One cannot trade horses if one is not content to — wink at the truth upon proper occasion. Is it not so, thou cunning tanner?"

"No!" thundered Papen.

"Well, mayhap not for a matter o' hides." Schneider shrugged his shoulders contemptuously; then, fearing its effect upon their bartering, he added: "not but it is a good thing sometimes; but truth hath its place, Heifert Papen, truth hath its place."

"Aye, and plainly it hath no place in a horsedealer." To himself he said again, "To let her go back with this beast were a sin." Then, again, to the horsedealer, "Take,

Schneider, the stallion for the spavined mare and the wench." He sighed as he said it.

"And how much more?"

"Ach! nothing more. There's a flat answer for thee."

"Then I wish thee a safe journey home, Heifert Papen, and a good morrow," and the wily horsetrader turned calmly aside.

"Stay — say twelve pounds besides?"

"I have known them to sell at this very tavern for fifty — wenches like her."

Schneider continued on his way, but turned and said:

"If thou'rt minded to speak earnestly I will wait; if not ——"

"Go thy way, soul-driver," said Papen, with a wave of his hand, about to turn his back on him. But catching the beseeching look of the little girl, he paused. "Stop! I'll give thee fifty."

But Schneider had also seen that look.

"If thou'lt have her thou must be able to say one hundred pounds, my master."

Heifert was about to make an angry retort; but again the distressed face of the little girl met his gaze.

"I'm a fool, but thou shalt have it. Ha, ha, ha! An hundred pounds for — Faith, I'll turn the spavined mare into hide to-morrow if she but carry us home. Eh, wench?"

"Ah, Master Papen, it is I that am the fool," said the horsetrader, with a hypocritical sigh.

II. HOME ON THE SPAVINED MARE

But to raise a hundred pounds among his friends in Philadelphia and to perfect the transfer of the indenture of the girl were matters that required time; and it was late in the afternoon when Papen and the girl finally took leave of Schneider. As a crowning evidence of his good nature, Schneider promised to send by the first wagoner Katerina's chest — without a penny of expense to her.

"Thou canst well afford it," said Papen significantly.

So, Heifert and Katerina started off to Germantown on the spavined mare, Katerina riding behind with her arms as far around the front rider as she could get them.

The two jogged along silently a while, then a wee, fearful voice reached Papen from behind:

"Master, will it please thee if I talk? — just a word — or two?"

"Aye, wench, if thou hast a voice use it when thou wilt; thou art no longer a slave."

"Ah!" she said, with a sigh of ecstasy, "I but wanted to say that I will serve thee forever!"

"Of course thou wilt, and we will be the best friends in this world," and her new master laughed, and, taking her small hands, drew them tightly around him.

The old mare was not fleet of foot; so when they arrived at Germantown it was quite dark, and Frau Papen was on the high-gabled stoop looking anxiously southward. She was much surprised at the sudden looming out of the darkness of the spavined mare with its double burden, and asked tremulously what had happened.

"Aha, dear wife, these be the times when one may *buy* one's whole family. See, I have brought thee a daughter, and this crow-roost of a mare, and left behind an hundred pounds and the finest stallion in German Township, to the worst Dutchman in Pennsylvania; and all because the little wench turned her blue eyes on me, and I remembered thy little one at the bottom of the sea and my promise to replace her."

Though the jolly Dutchman was bantering, his voice was glad and tender.

"Is this all true?" asked Frau Papen, as she fondly received the girl.

"Yes, yes, yes! He was so hard with me; and *he* looked so kind!" said Katerina as she clung to Frau Papen's neck and sobbed.

"And you know not whose she is?" the wife whispered anxiously to the husband.

"No; I'm a villain if I do. I asked him not."

"But art thou sure she is not *his* child?"

"Sure as that I breathe!"

They spoke in whispers then, and he told her of the horse trade.

"Oh, my husband! I feel that this is the best bargain thou hast ever made, nevertheless."

The thin arms of the girl went closer about her neck and her lips were pressed silently to Frau Papen's cheek in the dark.

"And she is mine?" asked the wife.

"Aye, she is thine."

"Then from this moment she is free; from this moment I take her for my own."

"So be it; though how thou canst make her free and also take her for thine own — aha, ha ha!"

A faint, smothered cry came from the girl; then her arms went closer, and her breast heaved faster, until she sobbed aloud.

Papen stole away, his big red handkerchief to his nose.

Presently the mother took Katerina up to a little chamber over the porch.

"Come," she said merrily, "let us see if we can find thee a nightgown; aye, here is one that I wore once. And to-morrow we will find, from the same stock, I doubt not, a pretty gown, and a brooch and a riband for thy hair; and —" as she took off the hard wooden shoes — "a pair of shoes more soft and kindly for thy feet."

Then they knelt down and prayed — the only prayer the little girl knew:

"Our Father which art in Heaven, hallowed be Thy name —" When the prayer was finished, they turned again face to face, Katerina suddenly reached up and kissed the face above her. Then she drew back in alarm at her boldness.

"Nay, though shalt kiss me whenever thou wilt. See, I kiss thee back."

"Oh! I never saw one so good," cried the girl.

"Thou art a cunning little flatterer," said Frau Papen. "And now good night, my pretty one."

"Good — good night. Ah, what must I call thee? I do not like to call thee mistress."

"What dost thou wish to call me, then?"

"Mother!" burst from her.

"And so thou shalt; and I will be truly a mother to thee. So, one more kiss, and God keep thee and give thee sweet dreams."

III. FRAU PAPEN'S STORY

Not always are promises made under strong emotion strongly kept. But Frau Papen kept hers in a way that even she had not dreamed of.

"Mother," said Katerina one day, "thou art very beautiful. Dost thou not think so?"

"Flatterer! No!"

They laughed and drew together.

"To-day thou shalt tell me something; promise, mother."

"I promise, then, torment."

"There is a sadness about thy mouth, and often thine eyes are red with weeping; what is it, mother?"

"Am I so? Why, then I must mend my ways so that my face shall tell the truth, for I grow happier every day that thou art with me."

"Ah, then, 'tis about me thou weepest — and thou may'st not tell?"

"Come, then, there shall be naught between us; for *'tis* of thee. Thou art not, after all, my own; I live in fear that some day some one will take thee from me."

"No, no, no!" cried Katerina violently, "I would not go."

"Ah, how could we keep thee?"

"Thou dost not love me!"

"Thou hast all my love except that with the little babe beneath the sea. Listen: one day we took ship — husband,

babe, and I — from war-cursed Europe to this land, where there was no war, no famine, no cruelty. The ship was crowded with the poor redemptioners, who, like us, were trying to get away from the horrors of war. These agreed to be sold into slavery upon their arrival here, for a term of years, to pay for their passage. Ship fever came, four out of every five died and were cast into the sea. When we dropped anchor in the Delaware I was sick of the fever. When I recovered they told me that my husband and babe were dead and that I had been sold. In pity Herr Papen bought me; and, finding favor in his eyes, I became his wife. We were not redemptioners; not only could we prepay our passage, but we had besides two thousand pieces of gold secreted in the false bottom of my brass-bound chest. Yet we were sold with the rest to pay for the dead that were cast into the sea. The chest I never again saw; doubtless it was stolen and plundered by the sailors. And now for thy story; for thou hast never told it to me."

"Alas! sweet mother, there is none. But is it not strange that I should have just such a chest? — heavy and black and brass-bound, was it? In it are but some musty books out of which I've learned what I know."

"No, it is not strange," said Frau Papen. "We had each such a chest. They were all much alike."

IV. THE FALSE BOTTOM IN THE BRASS-BOUND CHEST

More than two years passed by before Master Schneider fulfilled his promise to deliver Katerina's chest. Then, one day, a lumbering wagon drew up at Herr Papen's door and left the chest containing the musty books. The old servant was trying to lift it as Frau Papen came to the door. She was gently crooning a song. The two years had made her very happy.

"Ah," she said, continuing her song between the words, "how familiar it looks! There were so many of them — and

all alike! So wide, so high, so long; all piled on the foredeck. I can see them yet."

With her pretty white hands she was going lovingly over the curious brasswork. At one end the servant was still trying to lift it.

"Here's weight too much for me, mistress. One'd scarce believe it."

He walked about the chest, eyeing it curiously and wagging his head.

"I've heard of false bottoms in which weapons forbid by the king were carried; ay, and money, good gold," he muttered.

Frau Papen went on with her song, hearing him, but taking no account of his words. Now she laid hold of one of the brass handles.

"What, Peter! And thou, Katerina! Take hold. Come, away with it to the garret!" she cried gaily; "so shall we banish the last vestige of thy bondage. No? Then to thy chamber over the porch?"

On the stairs Frau Papen had to rest. Turning to the old servant, she said:

"Well, Peter, 'tis true that 'tis heavy. What wast mumbling? — Sweet, thou'rt pale! — and trembling — ?"

"He said there might be a — false bottom. And it *is* heavy. Is not gold heavy — very heavy?" faltered Katerina, as she leaned forward.

Frau Papen turned upon her almost fiercely, grasping her by the shoulders.

"Turn thy face to light!" she cried.

Katerina did so.

"Thy father's face was of that shape — his eyes were of that blue — But the proof is here. The key — where is the key? Why is it not here?"

In an excitement strange both to her and Katerina she fell on her knees before the chest and began to tug at the lid. Her effort was hopeless.

"The key!" she cried again, almost angrily, reaching out her hand toward the child.

Poor Katerina! The key was right at hand — on a little faded ribbon at her neck. But it was difficult to grasp with such trembling fingers. But presently it passed into the hands of the lady on the floor, and after many mis-shots went smoothly into the lock. Before the lid was fairly open Frau Papen was inside it with head and hands.

"Mine — mine — mine!" she cried, as she hastily tumbled out upon the floor what Katerina had theretofore called her belongings, together with many trinkets and trifles only too evidently not hers.

"My books," she went on, "my brooch, my combs, my ——"

She had reached the bottom. She fumbled a moment at some secret fixture at the end, at first without success and then pulled it out.

"My gold!" she exulted.

It was true. There lay the gold pieces, packed in tight rolls over the wide bottom of the chest, a glittering mass of yellow.

Then the excitement of Frau Papen vanished and her usual peaceful smile returned, more peaceful, more beautiful than it had ever been. The sadness was gone from it, and it bore the expression of pure joy. Slowly she turned toward Katerina. Fondly she looked at her for a moment as if to enjoy her before taking possession. Then she held out her arms.

"*Thou* art mine!" she said. Then, in a moment, "Dost thou understand, little daughter? They sold thee — and the chest — to Master Schneider ——"

"And I bought thee!" cried Heifert Papen, at that moment arriving, "of that same lying Dutchman! And all this gold! And — Oh, he shall hear of it if I have to make a journey to Lancaster County to tell him!"

CLASS ACTIVITIES

1. Select the three main surprises in the story. Which of them astonished you most? If you were telling a story containing a number of surprises, at which point would it be best to put in the chief surprise? Why?
2. Describe the horse trade. How much did Papen pay in our money for the mare and Katerina? Who got the better of the trade in the end?
3. Point out words and expressions which give one the impression of events which took place long ago.
4. Select three passages which best show the character of Heifert Papen; of Johannes Schneider; of Katerina; of Frau Papen.
5. Tell how Frau Papen learned that Katerina was her own daughter. How had the mother been separated from her child?
6. Point out two passages in which there is humor; two in which there is pathos. Do the stories you like best usually contain both humor and pathos? Mention examples.
7. *Volunteer project:* A committee dramatize the story and present it before the class. You may decide to give it also before the school assembly. In dramatizing the story, consider these points:
   - *a.* The number of scenes.
   - *b.* The characters.
   - *c.* The costumes and "properties."
   - *d.* The stage setting.
   - *e.* The dialogue — to what extent can the words of the author be used?
   - *f.* The action.

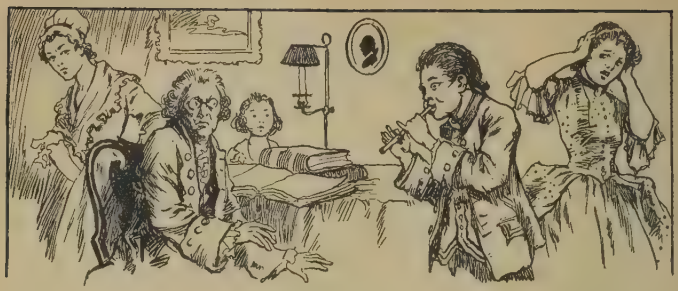
   For additional suggestions see *Book One*, pp. 113-114 and 429.
8. *Volunteer reports:*
   - *a.* Methods of travel in colonial days.
   - *b.* Colonial inns and taverns.
   - *c.* How redemptioners were treated in colonial Pennsylvania.
   - *d.* Slavery and the slave-trade in the colonies.
   - *e.* Household manufactures in America before the Revolution.
   - *f.* Fun and amusements in colonial days.
   - *g.* Early American money.
   - *h.* Methods of trading in colonial times.

ADDITIONAL READINGS. — 1. "Horse-Trading," E. N. Westcott, in *David Harum*, 1–21. 2. "An Auction Sale of Slaves," H. B. Stowe, in *Uncle Tom's Cabin*, chap. 30. 3. "Buying Wives," M. Johnston, in *To Have and to Hold*, chaps. 2 and 3.

CLASS-LIBRARY READINGS

Bartering, Trading, Shopping

1. "John Hancock: Merchant," P. Pressey, in *Vocational Reader*, 94–107.
2. "Robert Morris, Financier of the Revolution," in *Makers of Our History*, 37–50.
3. "Show-Card Writing," M. H. Pope, in *Opportunities of Today for Boys and Girls*, 121–125.
4. "Department-Store Education," H. R. Fox, *ibid.*, 216–218.
5. "The Metal That Measures the World's Wealth," *Compton's Pictured Encyclopedia*, 4: 1479–1480.
6. "How Long? How Much? What Does It Weigh?" *ibid.*, 9: 3713–3715.
7. "The Story of Money," *World Book*, 7: 4582–4592.



B. THE WORTH OF ONE'S MONEY

1. THE WHISTLE

BENJAMIN FRANKLIN

When I was a child seven years old, my friends on a holiday filled my pocket with coppers. I went directly to a shop where they sold toys for children, and, being charmed with the sound of a whistle that I met by the way in the hands of another boy, I voluntarily offered and gave all my money for one. I then ran home and went whistling all over the house, much pleased with my whistle, but disturbing all the family.

My brothers and sisters and cousins, understanding the bargain I had made, told me I had given four times as much for the whistle as it was worth; put me in mind what good things I might have bought with the rest of the money; and laughed at me so much for my folly that I cried with vexation; and the reflection gave me more chagrin than the whistle gave me pleasure.

This, however, was afterwards of use to me, the impression continuing on my mind; so that often when I was tempted to buy some unnecessary thing, I said to myself, "Don't give too much for the whistle"; and I saved my money.

As I grew up, came into the world, and observed the actions of men, I thought I met with many, very many, who gave too much for the whistle.

When I saw one too ambitious of court favor, sacrificing his time in attendance on levees — his repose, his liberty, his virtue, and perhaps his friends, to attain it — I have said to myself, "This man gives too much for his whistle."

When I saw another fond of popularity, constantly employing himself in political bustles, neglecting his own affairs, and ruining them by that neglect, "He pays indeed," said I, "too much for his whistle."

If I knew a miser who gave up every kind of comfortable living, all the pleasure of doing good to others, all the esteem of his fellow citizens, and the joys of friendship, for the sake of accumulating wealth, "Poor man," said I, "you pay too much for your whistle."

When I met with a man of pleasure, sacrificing every laudable improvement of the mind or of his fortune to mere bodily sensations, and ruining his health in their pursuit, "Mistaken man," said I, "you are providing pain for yourself instead of pleasure; you give too much for your whistle."

If I see one fond of appearance, or fine clothes, fine houses, fine furniture, fine equipages, all above his fortune, for which he contracts debts and ends his career in a prison, "Alas!" say I, "he has paid dear, very dear, for his whistle."

In short, I conceive that a great part of the miseries of mankind are brought upon them by the false estimates they have made of the value of things, and by their giving too much for their whistles.

CLASS ACTIVITIES

1. Tell the story of Franklin's whistle. How did his experience prove useful to him later in life?
2. What illustrations does Franklin give to explain his statement: "Don't give too much for a whistle"? Give an illustration of your own; tell about a whistle for which you paid too much.

3. Read the passage which shows whether Franklin believed that a person should always save as much money as he possibly can.
4. Explain: "A great part of the miseries of mankind are brought upon them by the false estimates they have made of the value of things." Give, if possible, an example of this from American history or from the history of some other country.
5. Draw a diagram which will show the plan Franklin followed in this selection. Give a name to each part of your diagram.
6. Write a brief introduction for this selection. For illustrations, read the introductions on pp. 127 and 165.
7. Word study in the glossary: levee, miser, laudable, equipage, estimate.

2. WANTS AS A FACTOR IN DETERMINING VALUES

LEVERETT S. LYON

What makes a fountain pen cost more than a lead-pencil? Why does sugar, which cost twenty-eight cents a pound during the World War, now sell for six or eight cents? Why is a piece of land in the heart of a city worth many times as much as a lot of the same size in an outlying district? The most important cause, perhaps, for these differences in value is explained in this selection.

Read the article through first to get a general idea of the contents; read it carefully a second time to master the details and illustrations; then glance through it finally in order to fix in mind the author's plan or framework. Make a list of questions about any statements or details which you do not understand.

Divide the class work into three parts: (1) Silent study of the selection as described above; (2) study of the "Class Activities," as explained on p. 211; (3) class conference on matters which have caused difficulty, as explained on p. 212.

When I was a boy in the country, there stood on the mantelpiece in our parlor, beside the tintype of Uncle Peter, and the shell which Aunt Carrie had brought from the seashore, a small oblong object. This object was what remained of a box of tacks after it had passed through the Great Chicago Fire. Though each tack was distinguishable, each had been softened enough by the terrific heat to weld the whole into a compact block exactly the shape of the container. My

father picked up the souvenir on the streets of Chicago the last day of the great fire. On the mantel it had remained ever since. We would have been far more loath to part with it than with Aunt Carrie's seashell, and I am forced to add, than with Uncle Peter's tintype.

We valued this relic highly, and, curiously enough, it attracted attention as a unique souvenir. Over and over again visitors violated the delicacy of good manners and offered to purchase it. The little object actually had a market value. The factors which gave it value were those which are responsible for value everywhere. Outstanding was the fact that people *wanted* it. The effects of *wants* on the value of things furnish a very interesting study for economists, investors, business men, and ladies who shop.

An older theory declared that costs of production alone give rise to value. If a man worked for three days to make an article, it was thought that he should be able to trade it for another article which required three days to make. Could he do so? Yes — provided no transportation problem was involved; provided raw materials were to be secured with equal ease; provided somebody else was not making the article more quickly; but above all, provided you wanted his article as much as he wanted yours. It would make no difference whether your reason for wanting his article was its rarity, as in the case of my father's box of tacks, or because many other people wanted it.

One of the most important and striking examples of the effect of *wants* on values is found in such farm products as wheat. During 1920, a Minnesota farmer purchased land, put in seed, bought machinery, and employed men at such rates that he estimated the cost of producing his wheat crop at two dollars a bushel. When he took his grain to market, however, he could obtain only a dollar and thirty cents a bushel for it. He felt that justice had been outraged. He condemned the board of trade and talked about bear raids in the wheat pit.

The objects of his wrath were not, however, the cause of the difficulty. The real trouble was that he had not correctly estimated the demand for wheat, and had raised grain for society which society did not want at that price. If every one could produce goods with the assurance that he would be paid the cost of production plus a profit, what a happy world this would be! We could raise wheat, no matter where, on good soil, on stony soil, even on the sand dunes and, though the costs of cultivation would be high, we would not need to consider them since we were guaranteed costs of production plus a profit.

Now let us see why products are cheaper to-day than they were during the World War. Certainly the reason is not in every case "because it costs less to make them." Buyers, in close touch with the movements of the market, saw that many *wants* caused by the World War would disappear with the end of the conflict, and that raw materials would then cost less. Consequently they bought sparingly, and purchased always at lower prices, from farmers whose wheat shipments were no longer wanted to replace cargoes sunk at sea, or from silk factories whose equipment was not needed for munitions of war.

Farm products and other commodities of commerce are not the only goods the price of which is strongly affected by *wants*. Land values in Chicago furnish a good illustration of the way in which wants indirectly give value to "production goods." A hundred years ago land in the present heart of the city, which is now worth thousands of dollars a foot, could be had for almost nothing. But there has developed a vast new *want* for it. A hotel now houses thousands of people on land once required for three families only. This increased value of land brings with it increased maintenance and adds to the cost of doing business. It is a factor that does not affect sparsely settled communities.

On the other hand during the past few years, when building costs have been so high that profits could not be made in

erecting new buildings, the *want* for residential land decreased and so we hear that there is a "poor market" for such real estate. If building costs come down, costs of construction "fall," and vacant lots may be expected to "rise." With new construction the *want* for homes, which is now great and causes rents to be high, will become less and rents will fall.

One of the most interesting facts about *wants* as a basis for value is the making of the *wants* themselves. Our *wants* come from customs, habits, tastes, imitation, fashions, and esthetic desires. Were we willing to live as our grandparents — were we willing to suffer the same privations, were we satisfied with cotton and bread instead of lace and French pastry — our *wants* would be considerably lessened.

Monopolies, costs, bank credits, and governmental money issues all play a part in the tangle of factors that fix prices. But perhaps the most important force is that deeply human trait that made folks remark, as they replaced the little oblong relic between Aunt Carrie's seashell and Uncle Peter's tintype: "Would you care to sell it?"

CLASS ACTIVITIES

Add to your list of questions (see p. 208) any of the following problems which you are unable to answer. Study these questions before discussing any of them in class. When the time comes for class discussion, take up first No. 14.

1. Read the sentence which gives the main reason why people wanted to buy the relic of the Chicago fire.
2. Explain the meaning of "market value." Did Aunt Carrie's seashell have a market value? Did Uncle Peter's tintype? Did the relic of the Chicago fire? Give reasons with each answer.
3. Tell about souvenirs you have at home which you would not wish to sell. If possible, bring one or two of them to class. Mention a souvenir you could sell if you wanted to, and tell of another for which you would have trouble in finding a purchaser. Account for the difference.

4. During the World War the government promised to pay manufacturers of war materials the cost of production plus 10 per cent. Give an illustration showing what this means. Would it be wise for the government to give a promise like this to all industries at all times? On what ground can the action of the government during the war be justified?
5. Explain the chief reason for products being cheaper now than they were during the World War.
6. What paragraph in this selection reminds you of "The Skyscraper," p. 129? Explain.
7. Our wants come from customs, habits, tastes, imitation, fashions, and esthetic desires. Mention wants you have which come from each of these six sources.
8. Name five wants you have which would disappear if you lived like the pioneers in "Turkey Red" (p. 40); like Ab in "The First Bow and Arrow" (p. 110).
9. Would it be better if we were to live as our grandparents did? Give reasons.
10. An increase in human wants has been the chief factor in causing man to advance in civilization. Do you think this is true? Find in preceding selections evidence which seems to prove or disprove the statement.
11. *Volunteer problem.* Explain, with illustrations, the next to the last sentence in the selection.
12. *Volunteer reports:*
    a. What the board of trade does.
    b. Bear raids in the wheat pit.
13. Answer the questions at the head of this article (p. 208)
14. Read aloud, in turn, the questions which you cannot answer and the details which you do not understand. Let any pupil who can explain these points volunteer to do so. Ask your teacher to clear up any difficulties which remain.
15. What paragraph in the selection is illustrated by the poem which follows?

Additional Readings. — 1. "Why We Buy — A Study in Advertising," H. F. Adams, in *Scribner's Magazine*, 67 : 608–616. 2. "Living Up to His Advertising," E. E. Calkins, *ibid.*, 71 : 105–111. 3. "Imagination in Selling," R. R. Updegraff, in *Harper's Magazine*, 144 : 245–252.

3. CONTENTMENT

OLIVER WENDELL HOLMES

"Man wants but little here below."

Little I ask; my wants are few;
I only wish a hut of stone,
(A *very plain* brownstone will do),
That I may call my own —
And close at hand is such a one,
In yonder street that fronts the sun.

Plain food is quite enough for me;
Three courses are as good as ten —
If Nature can subsist on three,
Thank Heaven for three. Amen!
I always thought cold victual nice —
My *choice* would be vanilla ice.

I care not much for gold or land —
Give me a mortgage here and there,
Some good bank stock, some note of hand,
Or trifling railroad share;
I only ask that Fortune send
A *little* more than I shall spend.

Jewels are baubles; 'tis a sin
To care for such unfruitful things —
One good-sized diamond in a pin —
Some, *not so large*, in rings —
A ruby, and a pearl, or so,
Will do for me — I laugh at show.

I would not have the horse I drive
So fast that folks must stop and stare;
An easy gait — two forty-five —

Suits me; I do not care —
Perhaps, for just a *single spurt*,
Some seconds less would do no hurt.

Of pictures, I should like to own
Titians and Raphaels three or four —
I love so much their style and tone,
One Turner, and no more,
(A landscape — foreground golden dirt —
The sunshine painted with a squirt.)

Busts, cameos, gems — such things as these,
Which others often show for pride,
I value for their power to please,
And selfish churls deride —
One Stradivarius, I confess,
Two meerschaums, I would fain possess.

Thus humble let me live and die,
Nor long for Midas' golden touch;
If Heaven more generous gifts deny,
I shall not miss them *much* —
Too grateful for the blessing lent
Of simple tastes and mind content!

CLASS ACTIVITIES

1. Name a few of the "simple" wants of the poet. What want would he probably change if he were writing the poem now?
2. Explain with the help of the glossary: mortgage, note of hand, railroad share, easy gait, Titian, Raphael, Turner, cameo, Stradivarius, meerschaum, Midas' golden touch. How does a knowledge of the meaning of these terms help one to enjoy the poem?
3. What was the most costly want of the poet? The least costly?
4. What effect does Holmes wish to produce by the use of italics? By the frequent use of the dash?
5. Read aloud the stanza you like best.
6. Contrast the first statement in each stanza with the rest of the stanza. Point out similar contrasts in other parts of the poem.

What was Holmes's purpose in making these contrasts? Compare in this respect with O'Reilly's purpose in "A Builder's Lesson" (p. 166; see especially Problem 7, p. 167).

7. Tell what makes the humor in the poem.

4. MOSES SELLS THE COLT

OLIVER GOLDSMITH

As we were now to hold up our heads a little higher in the world, it was thought proper to sell the colt at a neighboring fair, and buy us a horse that would carry single or double, and make a pretty appearance at church or upon a visit.

As the annual fair happened on the following day, I had intentions of going myself; but my wife persuaded me that I had a cold, and nothing could prevail upon her to permit me to go from home. "No, my dear," said she, "our son Moses is a discreet boy, and can buy and sell to a very good advantage; you know all our great bargains are of his purchasing. He always stands and actually tires them till he gets a bargain."

As I had some opinion of my son's prudence, I was willing enough to intrust him with this commission, and the next morning I perceived his sisters busy in fitting out Moses for the fair; trimming his hair, brushing his buckles, and cocking his hat with pins. The business of the toilet being over, we had at last the satisfaction of seeing him mounted upon the colt, with a box before him, in which to bring home groceries.

He had on a coat made of that cloth they call "thunder-and-lightning," which though grown too short was much too good to be thrown away. His waistcoat was of gosling-green, and his sisters had tied his hair with a broad black ribbon. We all followed him several paces from the door, bawling after him, "Good luck! good luck!" till we could see him no longer.

When it was almost nightfall, I began to wonder what could keep our son so long at the fair.

"Never mind our son," cried my wife; "depend upon it, he knows what he is about. I'll warrant we'll never see him sell his hen of a rainy day. I have seen him buy such bargains as would amaze one. I'll tell you a good story about that, that will make you split your sides with laughing. But, as I live, yonder comes Moses without a horse, and the box at his back."

As she spoke, Moses came slowly on foot, and sweating under the box, which he had strapped round his shoulders like a pedler.

"Welcome, welcome, Moses! Well, my boy, what have you brought us from the fair?"

"I have brought you myself," said Moses, with a sly look, and resting the box on the dresser.

"Ay, Moses," cried my wife, "that we know; but where is the horse?"

"I have sold him," replied Moses, "for three pounds five shillings and twopence."

"Well done, my good boy," returned she; "I knew you would touch them off. Between ourselves, three pounds five shillings and twopence is no bad day's work. Come, let us have it then."

"I have brought back no money," cried Moses again; "I have laid it all out in a bargain — and here it is," pulling out a bundle from his breast; "here they are — a gross of green spectacles, with silver rims and shagreen cases."

"A gross of green spectacles!" repeated my wife, in a faint voice. "And you have parted with the colt, and brought us back nothing but a gross of paltry green spectacles!"

"Dear mother," cried the boy, "why won't you listen to reason? I had them at a great bargain, or I should not have bought them. The silver rims alone will sell for double the money."

"A fig for the silver rims!" cried my wife in a passion. "I dare say they won't sell for above half the money at the rate of broken silver, five shillings an ounce."

"You need be under no uneasiness," said I, "about selling the rims, for they are not worth sixpence, for I perceive they are only copper varnished over."

"What!" cried my wife, "not silver! the rims not silver!"

"No," said I; "no more silver than your saucepan."

"And so," returned she, "we have parted with the colt, and have got only a gross of green spectacles with copper rims and shagreen cases! The blockhead has been imposed upon, and should have known his company better."

"There, my dear," said I, "you are wrong; he should not have known them at all."

"To bring me such stuff!" returned she; "if I had them, I would throw them into the fire."

"There again you are wrong, my dear," said I; "for though they are copper, we will keep them by us, as copper spectacles, you know, are better than nothing."

By this time the unfortunate Moses was undeceived. He now saw that he had been imposed upon by a prowling sharper, who, observing his figure, had marked him for an easy prey. I therefore asked the circumstances of his deception. He sold the horse, it seems, and walked the fair in search of another. A reverend-looking man brought him to a tent, under the pretence of having one to sell.

"Here," continued Moses, "we met another man, very well dressed, who desired to borrow twenty pounds upon the spectacles, saying that he wanted money, and would dispose of them for a third of the value. The first gentleman, who pretended to be my friend, whispered me to buy them, and cautioned me not to let so good an offer pass. I sent for Mr. Flamborough, and they talked him up as finely as they did me; and so at last we were persuaded to buy the two gross between us."

CLASS ACTIVITIES

1. Tell the story of Moses' experience at the fair.
2. Which of the motives mentioned by Lyon, p. 208, cause the family to want to buy a horse?

3. Did the mother and the father hold the same opinion of the ability of their son? Read passages which support your answer.
4. In what way was Mark Twain's experience at the auction sale (in "The Genuine Mexican Plug," p. 184) like Moses's experience at the fair?
5. Write three adjectives which best describe Moses; three which best describe his father; and three which best describe his mother. Find passages which justify your choice of adjectives.
6. What was Goldsmith's purpose in this story? Why is the story placed in this section?
7. Suggest three pictures which might be drawn to illustrate the story; perhaps you can sketch one of the three.
8. *Project for a volunteer committee.* Dramatize the story and act it out before the class.

5. BARTER

SARA TEASDALE

How does this poem remind you of Franklin's "The Whistle"?

Life has loveliness to sell,
All beautiful and splendid things,
Blue waves whitened on a cliff,
Soaring fire that sways and sings,
And children's faces looking up
Holding wonder like a cup.

Life has loveliness to sell,
Music like a curve of gold,
Scent of pine trees in the rain,
Eyes that love you, arms that hold,
And for your spirit's still delight,
Holy thoughts that star the night.

Spend all you have for loveliness,
Buy it and never count the cost;
For one white singing hour of peace
Count many a year of strife well lost,
And for a breath of ecstasy
Give all you have been, or could be.

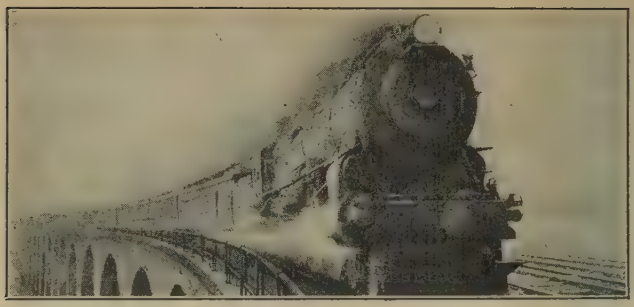
CLASS ACTIVITIES

1. "Life has loveliness to sell." What examples does the poet give? Mention some lovely things that you like.
2. What must we pay for the loveliness life has to sell? Can we buy it with money? Or must we pay for it by searching and seeking? Does the foreword on p. 2 help you to answer these questions? Are you helped by "Who Owns the Mountains," *Book One*, p. 198?
3. Is this poem an example of the loveliness life offers us? What must we pay to enjoy the poem?
4. Point out two pictures, or figures of speech, which you like in the poem.
5. Does "Barter" remind you of "The Whistle," p. 206? Explain.
6. Ask your teacher to read the poem aloud.

CLASS-LIBRARY READINGS

THE WORTH OF ONE'S MONEY

1. "The Battle of the Rubber Bands," *Vocational Reader*, 92–94.
2. "Where Mark Twain Got His Stories," *ibid.*, 228–236.
3. "Benjamin Franklin, the Many-Sided," in *Makers of Our History*, 3–18.
4. "Samuel Langhorne Clemens (Mark Twain)," *ibid.*, 320–330.
5. "Advertising as a Profession for Women," E. C. Moore, in *Opportunities of To-day for Boys and Girls*, 219–222.
6. "Uncle Sam — The World's Greatest 'Money Maker,'" *Compton's Pictured Encyclopedia*, 5 : 2258–2259.
7. "Money: What It Does and How It Is Made," *ibid.*, 6 : 2281–2284; *World Book*, 5 : 3885–3888; *Book of Knowledge*, 12 : 3617–3622.
8. "Advertising," *World Book*, 1 : 66–70.
9. "Gold," *ibid.*, 4 : 2522–2526.
10. "Horse Magic," R. Stock, in *The Promise of Country Life*, 117–122.



C. THE COMMERCE OF TO-DAY

1. COMMERCE

C. HENRY

In ancient days people believed that in a trade one person always lost. They could not see how both parties could gain. Merchants and traders were looked upon as little better than thieves and pirates, and their dishonesty and greed often justified the suspicion in which they were held. But to-day this situation has to a large extent disappeared. The true merchant now takes pride in the service he can render, not merely in the profits he can reap. This new ideal of commerce appears in this poem.

I come no more in grey disguise
With grasping hands and greedy eyes,
Living on larceny and lies.

No longer do my mighty host
Of ministers and servants boast
Of giving least and getting most.

But now, with eyes greed cannot blind,
With open hands and willing mind,
I live in service to mankind,

And hold him first among the rest
Who bears this motto on his breast:
HE PROFITS MOST WHO SERVETH BEST!

CLASS ACTIVITIES

1. What line best shows the ideal of modern commerce? Read the line which best shows the spirit of commerce in the old days.
2. Explain how both buyer and seller can gain in a sale. Perhaps "Wants as a Factor in Determining Values," p. 208, will help you answer this question.
3. Name ministers and servants of commerce in your community.
4. How may greed blind one's eyes?
5. Explain this line: I live in service to mankind.
6. In former times what sort of trader was considered the best trader? What sort is held in highest esteem nowadays? Read the lines which cause your opinion? How does this question differ from No. 1?

2. RUSHING FREIGHT TO NEW YORK

SYLVESTER BAXTER

Without the railroads the commerce of to-day would be impossible. Like a great net of steel they bind the country together and enable us to enjoy products which come from every section of the land. It is difficult to find an article of furniture or a piece of equipment in the home, the school, or the factory in the transportation of which the railroads have not contributed. This selection describes the part they play in collecting and distributing products in a great city. Notice how the author, by using an example, adds interest to his subject.

The Metropolis as a Focus

"All roads lead to Rome," they used to say. Here in America all roads now lead to New York. At least all railroads do. And on the sides where there are no railroads, the water-lines lead in from the seven seas.

To feed a great city, to meet its many physical needs, to supply the huge market that it makes for the nation and the world, and again to distribute to the nation and the world what is collected or produced at that market — this seems an infinitely complicated problem. The task has gradually shaped itself from day to day, from year to year. Otherwise

it would have been the despair of engineers, of statesmen, of the money-powers.

The ends of the earth are drawn upon to serve the greatest city of the western world. Its burden-bearers traverse the continent. Upon the restless waters of the bay and throughout the thronging streets there is a constant inpour and outpour of materials for the making of things, the selling of things, the devouring of things — a perpetual movement that brings and that sends in every direction an endless torrent of boxes, bales, barrels, and bundles.

All this tremendous turmoil in Manhattan streets seems a chaos of confusion. In truth it is but a disorderly order. It looks like the movement of a mob; actually it is the movement of a disciplined army advancing for the moment in loose formation.

Should we take at random any one of the boxes, bales, barrels, or bundles from the torrent and trace its journey back to its source, the magnificent order of it all would be apparent. Whatever it might be, whichever way it took us, we would explore the workings of some superb organization moving that particular box or bundle, together with thousands of other boxes and bundles, to this spot.

Fish from Boston for New York's Breakfast Table

Let us suppose that you and I are lunching together in some downtown restaurant in New York, talking this matter over. That broiled halibut which came to the next table looked so nice that we ordered some ourselves. Here it is! Could anything be fresher? Well, by following the course of that halibut on its way hither we shall get some idea of the transportation organization of New York's next-door neighbor, New England. We may see something of how New York, and a deal of the country beyond New York, is fed and clothed. "Fed!" you exclaim. "Fed from New England?"

Why, yes, to no little extent! Not only this fish, but also potatoes, apples, and cranberries, and a lot of other products

good to eat, come from that quarter. Take this halibut, for instance. Very likely it was landed day before yesterday in Boston — the first fishing-port in America, with a fresh-fish business of $6,000,000 and more a year.

The Fastest Freight-Train in the World

The other day I was on a train outward bound from a great city. We rolled past a big freight-yard. Hundreds of cars stood in compact ranks upon scores of parallel tracks. They bore the names of dozens of different railroad companies. The man sitting beside me remarked: "Curious how freight-cars always seem to be standing still! I'll warrant those very cars have been on those same tracks for the past week without stirring. I read lately that the average ton of railroad freight does not move more than twenty-five miles a day. No wonder freight-trains never get anywhere!"

"However that may be," I replied, "I can show you a yard where the average long-distance ton gets more than 200 miles inside of twenty-four hours. And a great deal of it is delivered more than 230 miles in less than a third of that time."

The man's eyes opened wide: "And do you mean to say that a freight-train does that? You must mean express, not freight."

"A regular freight-train, running daily as constantly as a ferryboat," I replied.

Now let us follow the track of the halibut back to Boston and look at that train for ourselves. It is the famous "Pier Freight," said to be the best freight-train in the world. The time is early last evening at the big yard in South Boston. A census of all the cars in this yard — 1800 on the average, and occasionally as many as 2100 — is taken twice a day. The general yardmaster knows about every car there: what it is, where it is, how long it has been there. In this one yard are fifty miles of track; every month at least 200,000 tons of freight are handled there.

The "Pier Freight" stands at its long platform, nearly loaded and ready to start — a 640-ton train; limited to the capacity of its motive power. Speed is a main consideration; the engine is a "long-legged" business-looking machine, one of the biggest of ten-wheeled passenger locomotives. Among engineers it is as much of an honor to run the Boston "Pier Freight" as to run the "Merchants Limited."

It is now within a few minutes of starting time; everything is on board except some of the fish. Teams still come hurrying into the yard with crates and barrels just packed; the perspiring freight-handlers are rushing their trucks along the platform to the cars. The train is scheduled to pull out at 5.55 P. M., and it lacks eight minutes of leaving time.

"All full!" comes the word. The last car doors are shut. Too late a wagon backs up to the platform. Its three crates of fish must be taken around to the South Station and go by express. They will get to New York on time, but at a much higher cost.

The halibut is safe on board. It is a rushing business, that of getting Boston fish to the New York market. The Boston dealers, as a rule, do not get their orders from New York till after 1 P. M. The orders come by mail or wire; mostly wire, either telegraph or telephone. The New York fish merchants cannot figure out their requirements for the day until well along in the forenoon. So at the Boston end there has to be quick work in getting the fish out of storage, and in packing and forwarding it. The main thing is to get the fish to the consumer as fresh as possible; hence the delay in ordering and the expedition in forwarding.

Twenty-nine Miles an Hour, Including Stops

The Boston "Pier Freight" runs to New York in 7 hours and 55 minutes; the distance is 227.75 miles — a running time, including stops, of a little less than 29 miles an hour. At times the speed runs as high as 60 miles an hour. Imagine, if you can, an old-time freight-train, with jiggly light cars

and link couplings, going like that! Such speed is made possible by the air-brake and automatic safety coupling. It now seems strange that their compulsory use was fought by some of the biggest railroad men.

In the old days a big railroad man once said of his company's freight service: "Eight miles to the hour is the proper speed. I will dismiss the engineer who dares run by his mile-post faster than that speed." An eminent expert in transportation charged another great railroad company with reckless extravagance in running its freight-trains as fast as twelve miles an hour. "The wear and tear is something terrible," he declared. "It is pounding the track to pieces; every ton of freight hauled at that rate is carried at a loss; a reduction of speed to eight miles an hour would lessen the expenses in the wear-and-tear account of the freight service of that railroad more than a thousand dollars a day!" Such were the days of iron rails and hand-brakes.

Just as the Boston "Pier Freight" habitually pulls out ahead of schedule time, so it customarily arrives ahead of time. It is almost never late in leaving or arriving. Once, when there was a bad snow storm in Boston, shippers were informed that on account of the bad going in the streets the train would be held for twenty minutes, if necessary. But even then all shipments were delivered to the yard in season and the train left promptly on time.

The "Pier Freight," due at Harlem River at 1.55 A. M., came in, as usual, ahead of time. The Fulton Market had its own boat in waiting; the crates of fish were promptly taken on board and down the river to the market. At five o'clock the fish were on the auction-block. And, as usual, that element in New York's breakfast, luncheon, dinner was taken care of for the day.

Enlarging New England's Market

How railroad improvements made at a distant point may benefit a given locality just as much as, or perhaps even more

than, other improvements made on the spot, is seldom appreciated. The average local merchant or manufacturer delights in transportation improvements in his own neighborhood, but is indifferent to those made at a distance. But does not a better stomach mean a better heart and a healthier man? So improvements in one part of a railroad may brace up the whole system and benefit everybody along the line.

For this reason Boston and the rest of New England are just as much benefited by terminal improvements in New York as they would be with improvements made at home. Since New York is New England's greatest market, every improvement that makes it easier and cheaper for goods from New England to reach that market benefits New England.

Agricultural as well as manufacturing interests benefit thereby. The Wallabout Market in Brooklyn is said to be the greatest in the world. From that market New England had been well-nigh excluded, while the trunk lines from the West enjoyed terminal relations that gave them cheap access. Potatoes brought a thousand miles from Wisconsin, or two thousand miles from Montana, kept out the potatoes of Maine, only a few hundred miles away. But now the advantage lies with the East. These instances of the way in which a whole section of the country may benefit by terminal improvements in New York show how the various communities that are served by a common system of transportation are members one of the other — literally bound together by hooks of steel.

CLASS ACTIVITIES

1. Explain how the people of New York get their food. What work do they do to pay for their food?
2. Do New Yorkers use most of the commodities which are brought to the city or do they ship them elsewhere? Explain.
3. Tell where the different foods you had for breakfast or dinner come from. Name the foods in which transportation by the railroad played no part.
4. How do you explain the first paragraph in view of the fact that Chicago is the greatest railway centre in the world?

5. Name two of the factors which have made New York the largest city in the New World.
6. Tell the journey of the broiled halibut. From what source come the fresh fish which your mother occasionally buys?
7. Why did many railroad leaders object to the compulsory use of the air-brake and the automatic safety-coupler? Were their reasons similar to those of the farm-hands who objected to McCormick's reaper (p. 126)? What are the chief advantages of the air-brake? Of the automatic safety-coupler?
8. Explain how railroad improvements at a point hundreds of miles distant from where you live may benefit your community.
9. Give examples showing how farmers are benefited by improvements in the railroads.
10. Tell what would happen to your community if it were cut off from all effective means of transportation.
11. *Volunteer reports* (consult the encyclopedia or the references below):
    a. The effect of the Erie Canal on New York City.
    b. George Stephenson and the first locomotive.
    c. George Westinghouse and the air-brake.
    d. Automatic safety coupling.
    e. The fastest freight-train to or from our community; where it comes from, where it goes.
12. Of what part of the selection does this poem by Carl Sandburg remind you?

BOX CARS

Box cars run by a mile long.

And I wonder what they say to each other
When they stop a mile long on a side-track.

Maybe their chatter goes:
I came from Fargo with a load of wheat up to the danger line.
I came from Omaha with a load of shorthorns and they splintered my boards.
I came from Detroit heavy with a load of flivvers.
I carried apples from the Hood River last year and this year bunches of bananas from Florida; they look for me with watermelons from Mississippi next year.

3. MY FINANCIAL CAREER

STEPHEN LEACOCK

When I go into a bank I get rattled. The clerks rattle me; the wickets rattle me; the sight of the money rattles me; everything rattles me. The moment I cross the threshold of a bank I am a hesitating jay. If I attempt to transact business there, I become an irresponsible idiot.

I knew this beforehand, but when my salary was raised to fifty dollars a month, I felt that the bank was the only place for it. So I shambled in and looked timidly around at the clerks. I had an idea that a person about to open an account needed to consult the manager. I went up to a wicket marked "Accountant." The accountant was a tall, cool devil, — the very sight of him rattled me. My voice was sepulchral.

"May I see the manager?" I said, and added solemnly "alone." I don't know why I said "alone."

"Certainly," said the accountant, and fetched him. The manager was a grave, calm man. I held my fifty-six dollars clutched in a crumpled ball in my pocket.

"Are you the manager?" I said. Heaven knows I didn't doubt it.

"Yes," he said.

"May I see you?" I asked. "Alone?" I didn't want to say "alone" again, but without it my question seemed self-evident.

The manager looked at me in some alarm. He felt that I had a terrible secret to reveal.

"Come in here," he said, leading the way to a private room, and turning the key.

"We are safe from interruption here," he said; "sit down."

We both sat down and looked at one another. I found no voice to speak.

"You are a Pinkerton detective, I presume," he said.

He had gathered from my mysterious manner that I was a detective. I knew what he was thinking and felt all the worse.

"No, not from Pinkerton's," I said, seemingly to imply that I came from a rival agency. "To tell the truth," I went on, as if I *had* been prompted to lie about the matter, "I am not a detective at all. I have come to open an account. I intend to keep all my money in this bank."

The manager looked relieved, but still serious; he concluded now that I was a son of Baron Rothschild, or a young Gould.

"A very large account, I suppose," he said.

"Fairly large," I whispered. "I propose to deposit fifty-six dollars now, and fifty dollars a month regularly."

The manager got up and opened the door. He called to the accountant.

"Mr. Montgomery," he said, unkindly loud, "this gentleman is opening an account; he will deposit fifty-six dollars. Good-morning."

I rose. A big iron door stood open at the side of the room.

"Good morning," I said, and stepped into the safe.

"Come out," said the manager coldly, showing me the other way.

I went up to the accountant's wicket and poked the ball of money at him with a quick, convulsive movement as if I were doing a trick. My face was ghastly pale.

"Here," I said, "deposit it." The tone of the words seemed to mean, "Let us do this painful business while the fit is on us."

He took the money and gave it to another clerk. He made me write the sum on a slip and sign my name in a book. I no longer knew what I was doing. The bank swam before my eyes.

"Is it deposited?" I asked, in a hollow, vibrating voice.

"It is," said the accountant.

"Then I want to draw a check."

My idea was to draw out six dollars for present use. Some one gave me a check-book through a wicket, and some one else began telling me how to write the check. The people in the bank had the impression that I was an invalid millionaire.

I wrote something on the check and thrust it in at the clerk. He looked at it.

"What! Are you drawing it all out again?" he asked in surprise. Then I realized that I had written fifty-six instead of six. I was too far gone to reason now. I had a feeling that I could not explain my act. All the clerks had stopped writing to look at me.

Reckless with misery, I made a plunge.

"Yes, the whole thing."

"You withdraw your money from the bank!"

"Every cent of it."

"Are you not going to deposit any more!" said the clerk, astonished.

"Never!"

An idiot hope struck me that he might think some one had insulted me while I was writing the check and that I had changed my mind. I made a wretched attempt to look like a man with a fearfully quick temper.

The clerk prepared to pay the money.

"How will you have it?" he said.

"Oh." I caught his meaning and answered without even trying to think, "In fifties."

He gave me a fifty-dollar bill.

"And the six?" he asked dryly.

"In sixes," I said.

He gave me the money and I rushed out. As the big doors swung behind me I caught the echo of a roar of laughter that went up to the ceiling of the bank. Since then I bank no more. I keep my money in cash in my trousers pocket, and my savings in silver dollars in a sock.

CLASS ACTIVITIES

1. At what place did you first realize that "My Financial Career" was a funny story? In your opinion what is the funniest point in the story?

2. Three pupils in the class volunteer to dramatize the selection and present it before the class and, perhaps, before the school assembly.
3. Volunteer to tell or write about the funniest experience you ever had in a shop or a store.
4. Bring to class the funniest short story you can find at home or in the library and exchange with one another. Ask your teacher to read the two funniest stories aloud to the class.
5. *Fun for volunteers:*
   a. Draw a number of pictures to illustrate "My Financial Career."
   b. Write a composition describing your first ride on a roller-coaster or in a subway.

4. CARGOES

JOHN MASEFIELD

This poems pictures three great periods in world commerce: first, the commerce of two thousand years ago between ancient Nineveh and Africa; second, the commerce of four centuries ago between Spain and South America; third, one phase of the commerce of to-day.

Quinquereme of Nineveh from distant Ophir,
Rowing home to haven in sunny Palestine,
With a cargo of ivory
And apes and peacocks,
Sandalwood, cedarwood, and sweet white wine.

Stately Spanish galleon coming from the Isthmus,
Dipping through the Tropics by the palm-green shores
With a cargo of diamonds,
Emeralds, amethysts,
Topazes, and cinnamon, and gold moidores.

Dirty British coaster with a salt-caked smoke-stack,
Butting through the Channel in the mad March days
With a cargo of Tyne coal,
Road rails, pig lead,
Firewood, ironware, and cheap tin trays.

5. THE ROMANCE OF A BUSY BROKER

O. HENRY

Pitcher, confidential clerk in the office of Harvey Maxwell broker, allowed a look of mild interest and surprise to visit his usually expressionless countenance when his employer briskly entered at half-past nine in company with his young lady stenographer. With a snappy "Good morning, Pitcher," Maxwell dashed at his desk as though he were intending to leap over it, and then plunged into the great heap of letters and telegrams waiting there for him.

The young lady had been Maxwell's stenographer for a year. She was beautiful in a way that was decidedly unstenographic. She wore no chains, bracelets, or lockets. She had not the air of being about to accept an invitation to luncheon. Her dress was gray and plain, but it fitted her figure with neatness and modesty. In her neat black turban hat was the gold-green wing of a macaw. On this morning she was softly and shyly radiant. Her eyes were dreamily bright, her cheeks genuine peachblow, her expression a happy one, tinged with reminiscence.

Pitcher, still mildly curious, noticed a difference in her ways this morning. Instead of going straight into the adjoining room, where her desk was, she lingered, slightly irresolute, in the outer office. Once she moved over by Maxwell's desk, near enough for him to be aware of her presence.

The machine sitting at that desk was no longer a man; it was a busy New York broker, moved by buzzing wheels and uncoiling springs.

"Well — what is it? Anything?" asked Maxwell sharply. His opened mail lay like a bank of stage snow on his crowded desk. His keen gray eye, impersonal and brusque, flashed upon her half impatiently.

"Nothing," answered the stenographer, moving away with a little smile.

"Mr. Pitcher," she said to the confidential clerk, "did Mr. Maxwell say anything yesterday about engaging another stenographer?"

"He did," answered Pitcher. "He told me to get another one. I notified the agency yesterday afternoon to send over a few samples this morning. It's 9.45 o'clock, and not a single picture hat or piece of pineapple chewing gum has showed up yet."

"I will do the work as usual, then," said the young lady, "until some one comes to fill the place." And she went to her desk at once and hung the black turban hat with the gold-green macaw wing in its accustomed place.

He who has been denied the spectacle of a busy Manhattan broker during a rush of business is handicapped for the profession of anthropology. The poet sings of the "crowded hour of glorious life." The broker's hour is not only crowded, but the minutes and seconds are hanging to all the straps and packing both front and rear platforms.

And this day was Harvey Maxwell's busy day. The ticker began to reel out jerkily its fitful coils of tape, the desk telephone had a chronic attack of buzzing. Men began to throng into the office and call at him over the railing, jovially, sharply, viciously, excitedly. Messenger boys ran in and out with messages and telegrams. The clerks in the office jumped about like sailors during a storm. Even Pitcher's face relaxed into something resembling animation.

On the Exchange there were hurricanes and landslides and snowstorms and glaciers and volcanoes, and those elemental disturbances were reproduced in miniature in the broker's offices. Maxwell shoved his chair against the wall and transacted business after the manner of a toe dancer. He jumped from ticker to phone, from desk to door, with the trained agility of an acrobat.

In the midst of this growing and important stress the broker became aware of a high-rolled fringe of golden hair under a nodding canopy of velvet and ostrich tips, an imitation seal-

skin sack, and a string of beads as large as hickory nuts, ending near the floor with a silver heart. There was a self-possessed young lady connected with these decorations; and Pitcher was there to construe her.

"Lady from the Stenographers' Agency to see about the position," said Pitcher.

Maxwell turned half around, with his hands full of papers and ticker tape.

"What position?" he asked, with a frown.

"Position of stenographer," said Pitcher. "You told me yesterday to call them up and have one sent over this morning."

"You are losing your mind, Pitcher," said Maxwell. "Why should I have given you any such instructions? Miss Leslie has given perfect satisfaction during the year she has been here. The place is hers as long as she chooses to retain it. There's no place open here, madam. Countermand that order with the agency, Pitcher, and don't bring any more of 'em in here."

The silver heart left the office, swinging and banging itself against the office furniture as it indignantly departed. Pitcher seized a moment to remark to the bookkeeper that the "old man" seemed to get more absent-minded and forgetful every day of the world.

The rush and pace of business grew fiercer and faster. On the floor they were pounding half a dozen stocks in which Maxwell's customers were heavy investors. Orders to buy and sell were coming and going as swift as the flight of swallows. Some of his own holdings were imperiled, and the man was working like some high-geared, delicate, strong machine — strung to full tension, going at full speed, accurate, never hesitating, with the proper word and decision and act ready and prompt as clockwork. Stocks and bonds, loans and mortgages, margins and securities — here was a world of finance, and there was no room in it for the human world or the world of Nature.

When the luncheon hour drew near there came a slight lull in the uproar.

Maxwell stood by his desk with his hands full of telegrams and memoranda, with a fountain pen over his right ear and his hair hanging in disorderly strings over his forehead. His window was open, for the beloved janitress Spring had turned on a little warmth through the waking registers of the earth.

And through the window came a wandering — perhaps a lost — odor — a delicate, sweet odor of lilac that fixed the broker for a moment immovable. For this odor belonged to Miss Leslie; it was her own, and hers only.

The odor brought her vividly, almost tangibly, before him. The world of finance dwindled suddenly to a speck. And she was in the next room — twenty steps away.

"By George, I'll do it now," said Maxwell, half aloud. "I'll ask her now. I wonder I didn't do it long ago."

He dashed into the inner office. He charged upon the desk of the stenographer.

She looked at him with a smile. A soft pink crept over her cheek, and her eyes were kind and frank. Maxwell leaned one elbow on her desk. He still clutched fluttering papers with both hands, and the pen was above his ear.

"Miss Leslie," he began hurriedly, "I have but a moment to spare. I want to say something in that moment. Will you be my wife? I haven't had time to make love to you in the ordinary way, but I really do love you. Talk quick, please — those fellows are clubbing the stuffing out of Union Pacific."

"Oh, what are you talking about?" exclaimed the young lady. She rose to her feet and gazed upon him, round-eyed.

"Don't you understand?" said Maxwell, restively. "I want you to marry me. I love you, Miss Leslie. I wanted to tell you, and I snatched a minute when things had slackened up a bit. They're calling me for the phone now. Tell 'em to wait a minute, Pitcher. Won't you, Miss Leslie?"

The stenographer acted very queerly At first she seemed

overcome with amazement; then tears flowed from her wondering eyes; and then she smiled sunnily through them, and one of her arms slid tenderly about the broker's neck.

"I know now," she said, softly. "It's this old business that has driven everything else out of your head for the time. I was frightened at first. Don't you remember, Harvey? We were married last evening at eight o'clock in the Little Church Around the Corner."

CLASS ACTIVITIES

1. Did the story end as you expected? Is the story true; that is, do you think a man could forget that he had been married the evening before?
2. What is O. Henry's aim in the story?
3. What paragraph in "Rushing Freight to New York," p. 221, resembles the scene in the broker's office?
4. Name three features which make this a good story.
5. *Volunteer problem.* Explain the business of a broker; include in your explanation terms in the story which are used on the stock exchange.

CLASS-LIBRARY READINGS

THE COMMERCE OF TO-DAY

1. "Financing a Panic." H. M. Wooley, in *Stories of the Day's Work*, 80–95.
2. "The Making of a Merchant." H. N. Higinbotham, in *Vocational Reader*, 89–92.
3. "The Freight Train," Cy Warman, *ibid.*, 161–162.
4. "The New Day in Salesmanship," F. Parsons, in *Opportunities of Today for Boys and Girls*, 141–152.
5. "The Selling of Stocks and Bonds," *ibid.*, 223–225.
6. "The Story of the Calculating Machine," *Wonder Book of Knowledge*, 345–355.
7. "The Story of the Addressograph," *ibid.*, 364–372.
8. "Stocks and Bonds and What They Mean," *Compton's Pictured Encyclopedia*, 8: 3358–3360; *World Book*, 7: 5555–5556.

GENERAL REVIEW OF BUYING AND SELLING

READING HABITS

(To be read and discussed by teacher and pupils together)

Sometimes we read for fun or recreation; sometimes we read for information or general knowledge; and sometimes we read for instruction or in order to master or understand thoroughly such material as is found in text books.

The method suggested for this third type of reading, ordinarily called study, was explained in part in the directions given with "Wants as a Factor in Determining Values," p. 208. If study is carried on with the highest success it requires, of course, like the other two types of reading, the mastery or learning of certain skills or habits. The most important study skills or habits, with their purposes, may be grouped as follows:

1. Reading.
   - *a*. A fairly rapid first reading for the purpose of grasping the thought as a whole.
   - *b*. A deliberate second reading of the entire selection or of certain parts, for the mastery of details and illustrations.
   - *c*. A final scanning in order to fix in mind the plan or framework.
2. Assimilating or mastering.
   - *a*. During the first and second reading try to get the author's thought by putting it in your own words.
   - *b*. During the second reading bring in your previous knowledge, read between the lines, and find, if possible, original illustrations of the author's ideas.
   - *c*. During the final scanning, determine the major and minor ideas and make an outline, either in your head or on paper, of the main divisions and subdivisions.
3. Preparing to recite.
   - *a*. Fix in memory the plan or framework of the thought.
   - *b*. Go over and explain the important passages to yourself in your own words and, if possible, with original illustrations.
   - *c*. Run over the entire selection in your mind in order to see if you can give a clear, connected floor talk upon it. Read again any parts which cause you trouble.

Try this plan of study with "Manufacturing Automobiles," p. 153, or with "Rushing Freight to New York," p. 221. After you have done this, discuss the difficulties you met. Finally, try the plan in the preparation of your next lesson in history, geography, or science, and talk over your experience later on here in class.

QUESTIONS AND PROBLEMS

1. Explain the difference between bartering and buying.
2. Name three marks, or characteristics, of an up-to-date grocery-store, drug-store, or department-store. Describe three features of the most up-to-date store (of any sort) you have ever seen.
3. Make a list of ten of your most important wants. Put a cross (X) after those which need not be satisfied in order that you may live; put two crosses (XX) after those which you would no longer have if, like Robinson Crusoe, you lived alone on an island. If you were to check off in this manner the wants included in Holmes's "Contentment," p. 213, what ones would remain?
4. Name any factors, not mentioned by Lyon, p. 208, which play a part in determining values.
5. *Volunteer project.* Do any bus lines run through your community? If so, describe the way they are affecting passenger or freight traffic on the railroads. Inquire at the offices of both the railroads and the bus lines.
6. *Volunteer project.* Ask two business men what effect the closing of all banks would have on business and report their answers to the class.
7. Make a list of seven important agencies used in modern commerce; as, for example, railroads, money, banks. In your opinion, which plays the greatest part?

ROUNDING OUT THE MEANING OF BUYING AND SELLING

1. Write a composition of from 150 to 300 words, telling why people exchange goods, describing agencies which they use in making exchanges, and explaining the spirit which moves the dealers of the highest type. If you prefer, limit your composition to one or two of the matters just mentioned.
2. Name three important differences between the commerce of ancient times and the commerce of to-day.

3. What is the purpose in advertising? Bring to class three or four of the best advertisements you can find in recent newspapers or magazines and be prepared to tell why you think the advertisements are good. Bring also three interesting "Want Ads" to read to the class.
4. Describe the most effective store-window display you have seen during the past week.
5. From the book you have been reading (p. 178) select a chapter or a passage which fits into one of the sections in this unit. Give a floor talk on this passage, describing its contents and telling why you think it fits into the section.
6. From newspapers, periodicals, and old books, secure and bring to class pictures or clippings which illustrate phases of this unit. Tell the class about your most interesting picture or clipping.
7. Let a committee of three collect the advertisements brought in answer to No. 5, select the fifteen or twenty which they regard as the best, and post them on the bulletin board in the hall where all the pupils in the school can see them.
8. Divide the class into five committees to make scrap-books on Buying and Selling. (Let individual pupils work this out if they prefer.) Divide the scrap-books into three chapters, giving each chapter the title of one of the sections in this unit. In the scrap-books, appropriately arranged, put advertisements, pictures, and clippings brought in answer to Nos. 5 and 6, together with original drawings, poems, stories, and other items of interest, which members of the class may contribute. Have an exhibition of these books in your class-room; select the best two or three to show to the principal, and then place the two or three books in the school library for use by future classes.
9. Let a committee collect and tabulate the votes of the class on the following questions about the selections in Buying and Selling:
   a. Which is the funniest?
   b. Which is the saddest?
   c. Which is the most instructive?
   d. Which is the hardest to read?
   e. Which is the easiest to read?

Arrange the report like this:

TITLE OF SELECTION	FUNNIEST	SADDEST	MOST INSTRUCTIVE	HARDEST TO READ	EASIEST TO READ

TOPICS FOR COMPOSITION OR REPORTS

1. Money in Colonial days.
2. My first trade.
3. Shopping with mother (or father).
4. My wants (poem).
5. A trip through a mail-order house.
6. My experience as a clerk.
7. The time I paid too much for a whistle.
8. The store I like best.
9. Postal savings banks.
10. Shipping freight by motor-truck.

QUESTIONS FOR DEBATE

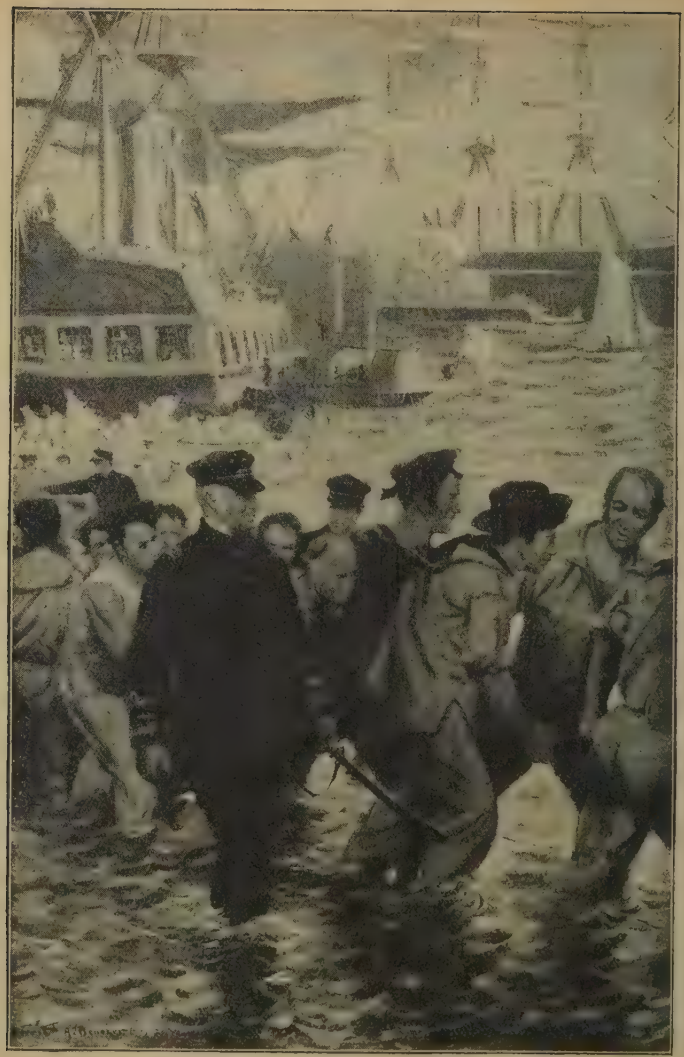
1. *Resolved*, That our school should establish a savings bank for the use of the pupils.

2. *Resolved*, That school supplies should be furnished to pupils at cost.

3. *Resolved*, That each boy and girl should be required by his parents to give an account of the way he spends his money.

UNIT FOUR

COMMUNICATING AND TRAVELLING



LAYING THE ATLANTIC CABLE—A "LINK TO BIND NATIONS TOGETHER."

THE VOICES IN SPACE

Over the wires of the telephone, day and night, go the voices of men and women speaking their lines in the drama of life. An ever-changing theme it is. The stage reaches from ocean to ocean. The players are constantly changing; the scenes are different, but the action never stops.

Now a flash of comedy — quietly, and mile-a-second laughter leaps over unreckoned space. Now a curt command, and across a continent the wheels of commerce move. Again the scene shifts — grim tragedy stalks the boards — a cry for law and justice vibrates into the night.

So runs the endless drama of the wires.

COMMUNICATION

In 1789, George Washington rode on horseback from Mount Vernon to his inauguration as President in New York, then the national capital. His journey required several days. Forty years later, when Andrew Jackson was elected as President, fourteen days passed before word of that honor reached him at his home in Tennessee. The news of Abraham Lincoln's nomination for the presidency did not reach San Francisco until eight days after the convention in Chicago. In 1830, a stage-coach journey from Washington to Indianapolis required twenty days, while a trip from New York to San Francisco by public conveyance was an impossibility. Even as late as 1840 the cost of sending one ounce of mail by coach and pony express across the continent was ten dollars, and the time required was thirty days.

To-day, a New York merchant may easily converse over the telephone with a San Francisco customer; a message can be sent around the world by wire in one-seventh of one second. A railway journey from Washington to Indianapolis requires only fourteen hours, and a trip across the continent may be made in four days. In great emergencies, thousand-mile journeys may be made by air transport in ten hours. Ships at sea are in constant and almost instant communication with land a thousand miles away. From the remotest parts of the civilized world, news of yesterday is published in our morning newspapers. Ten million pieces of mail, each carried at a very small cost, pass through the postal service of New York City every twenty-four hours; the total daily movement of mail in the United States approaches 1,000,000,000 pieces.

IV. COMMUNICATING AND TRAVELLING

A. Sending Messages

		PAGE
1. Postmen	*Virna Sheard*	248
2. A Parable of White Paper	*William E. Barton*	250
3. Inscriptions on the Federal Post-Office Building	*Chares W. Eliot and Woodrow Wilson*	252
4. The Spider's Telegraph-Wire	*Jean Henri Fabre*	254
5. Under a Telephone-Pole	*Carl Sandburg*	257
6. A Hero of Wireless	*Francis Arnold Collins*	258

B. Old-Fashioned Journeys

1. An American Stage-Coach Journey	*Charles Dickens*	263
2. Horace Greeley's Ride	*Artemus Ward*	268
3. The Law of Club and Fang	*Jack London*	272

C. Annihilating Distance by Land

1. Beating Time and Space	*Harold Ordway Rugg*	282
2. The Fireman	*Anonymous*	285
3. The First Railroad Across the Continent	*Howard C. Hill*	291
4. The Home Express	*John Godfrey Saxe*	299

D. Crossing Great Waters

1. The Sea	*Bryan Waller Proctor*	302
2. Sea-Fever	*John Masefield*	304
3. How Phileas Fogg Won His Wager	*Jules Verne*	305
4. The Glory of Ships	*Henry van Dyke*	309

CHOOSE A BOOK

1. Brigham, Albert Perry, *From Trail to Railway Through the Appalachians.* Ginn.

   Stories of the development of ways of travel from trails, through roads, waterways, and railroads.

2. Brooks, Noah, *First Across the Continent.* Scribner.

   Story of the adventures of Lewis and Clark in 1802–1804, when they crossed the continent to explore the Oregon country.

3. Collins, Francis Arnold, *The Wireless Man.* Century.

   Tales of his service and sacrifice, and of stirring rescues made through wireless.

4. Earle, Alice Morse, *Stage-Coach and Tavern Days.* Macmillan.

   Stories of travel when America was young, in the days of rough taverns and queer landlords, of terrible roads and uncomfortable stage-coaches, when tavern ghosts added to the joys of travel.

5. Franck, Harry A., *Working My Way Around the World.* Century.

   Story of a man who, without money, weapons, or baggage, made a fifteen-month trip around the world; his adventures in many strange lands, including Egypt, India, Siam, and Japan.

6. Kipling, Rudyard, *With the Night Mail.* Doubleday.

   A boy: "The story is especially interesting just now because the book was written before any one thought that airplanes would be used to any great extent."

7. Kipling, Rudyard, *Captains Courageous.* Doubleday.

   A rich man's son is lost overboard from a vessel, is rescued by fishermen, and spends exciting months on a strange ship. The brine of the sea is in this story.

8. Lummis, Charles F., *A Tramp Across the Continent.* Scribner.

   The author, who travelled from Ohio to California on foot, many years ago, tells of his experiences in the Rockies, in the land of the adobe; adventures with the nomads and with the Great American Desert.

9. McFee, Inez N., *Robert Fulton.* Barse and Hopkins.

   Story of the man who drove the first steamboat, the little *Clermont*, up the Hudson River.

10. Parkman, Francis, *The Oregon Trail.* Little, Brown.

    The story of actual wanderings in 1846 upon the plains west of the Mississippi, with buffalo hunts, adventures of travel on the trails in the early days.

11. Rolt-Wheeler, Francis, *The Boy with the U. S. Mail.* Lothrop, Lee.
"The mail must go through" in spite of blizzards or floods, forest fires or wrecks. This story gives vivid pictures of the heroism of men engaged in the postal service of their country.

12. Roper, Daniel C., *The United States Post Office.* Funk and Wagnalls.
How the postal service has grown from the use of post roads when Benjamin Franklin was Postmaster-General, through the use of stage-coach and steamboat, to the mail service by airplane to-day.

13. *Sea Stories: Retold from St. Nicholas.* Century.
Short tales of sea life and adventure: repelling boarders, narrow escapes, steering without a compass, lights that guide at night, the famous voyage of the *Oregon.*

14. Spearman, Frank H., *The Mountain Divide.* Scribner.
A story of the building of the Union Pacific, in which the hero, Bucks, takes part in many adventures with outlaws and Indians. Read also Spearman's *Stories of Railroad Life.*

15. Stuck, Hudson, *Ten Thousand Miles by Dog Sled.* Scribner.
A bishop of Alaska tells a story of travel in the Far North.

16. Swift, Jonathan, *Gulliver's Travels.* Harper.
Strange adventures and travels in the lands of the pygmies and of the giants.

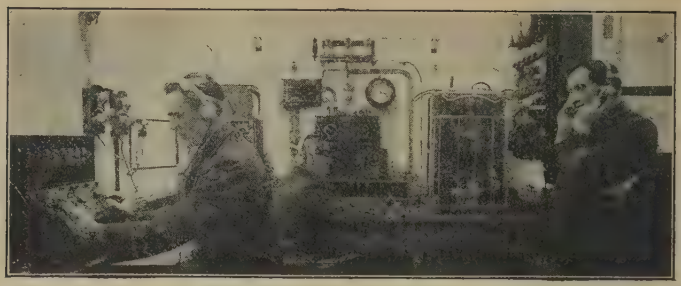
17. Tappan, Eva March, *Travelers and Traveling.*
Railroads, mail, freight, trolley-cars, subways, bridges, rivers, canals, ships — how all serve to make our lives easier and happier.

18. Towers, Walter Kellogg, *Masters of Space.* Harper.
Talking at a distance, sending messages through space, the wonders of telegraph, cables, telephones, wireless — how they have grown from message-sending by fire or smoke.

19. Twain, Mark (Samuel L. Clemens), *Life on the Mississippi.* Harper.
The great humorist's own favorite among his books. Stories of the Mississippi River in the old days of steamboat travel from St. Paul to the Gulf.

20. Verne, Jules, *Around the World in Eighty Days.* Scribner.
Phileas Fogg, who has wagered that he can sail around the world in eighty days, is tracked as a bank robber; he escapes and, by sheer good-fortune, completes his journey within the time set.

21. Warman, Cy, *The Story of the Railroad.* Appleton. *Short Rails.* Scribner. And *The Express Messenger.* Scribner.
Stories like "Jack Farley's Flying Switch," "The First Train Over the Bridge," "The Locomotive That Lost Herself," "Catching a Runaway Engine"; all the excitement and heroism of railway life and service.



A. SENDING MESSAGES

1. POSTMEN

VIRNA SHEARD

Form a reading partnership with Miss Sheard. She, as the author, is one of the partners; as you read, you are the other partner. Do your share; find one or more places in "Postmen" at which you can stop and say: "There, I can give an example of *that*," or "I can tell an experience that proves *that*," or "I know something else that Miss Sheard does not tell." Read the poem a second time and write out one of the contributions you make as a partner in the reading.

I like postmen.
They are the winged Mercurys of our streets,
  Though they may not realize it.
They only realize they carry letters —
  Of different kinds.
Just letters — Letters.
  But they know the different kinds,
    By intuition,
  Or something.

I like postmen. You don't have to explain to them.
  They understand.
They are gifted that way. Dowered mysteriously.
  If you are looking madly for a letter,
They know. Without being told.

If they don't bring it, their eyes say, "Sorry";
And their husky voices (usually husky; it's the weather)
Say, "There's another mail from the East;
Or West" — as it may be, for they know —
"To-day."
If they bring the letter — they smile in a priceless way.
It is as though one of the Fates smiled at you.

I like postmen, their unruffled spirit.
They make so few mistakes,
Even when the writing seems to have been done
With a whisk.

They are wise, these men of letters —
Graduates of the School of Humanity.
One I know has a limp.
Hill 70.
He has four medals that he keeps in a box.

I like postmen.
Their weather-beaten faces, when they grow old;
Their understanding eyes.
They just appear — and disappear — without any fuss.
Sometimes — like the Angels on the hill — they bring
Tidings of great joy.
Always they are the last link between ourselves
And our own who are away.
They are the winged Mercurys of the dull town.
Though they may not know it.
I like postmen.

CLASS ACTIVITIES

1. Read what you contributed as a partner of Miss Sheard. Tell about a letter you have eagerly waited for. How was the postman a "link" between yourself and your "own," as Miss Sheard suggests?

2. Find the story of Mercury. Find a picture of the statue of Mercury.
3. Read the suggestion for helping postmen in their services. Tell about a poorly written or an incomplete address upon a letter which was interpreted by your postman.
4. Name other unappreciated services to which the phrase "though they may not realize it" may be applied. Give proof from the poem that Miss Sheard likes postmen. Which part of the poem best applies to a postman you know? Tell of some kindness he has done.
5. Name situations like a mining-camp in Alaska or a remote military station in the Philippines in which the coming of messages is of great importance.
6. What line of "Postmen" contains the most thought in a very little space?
7. Explain the following: by intuition, dowered mysteriously, unruffled spirit, writing done with a whisk, graduates of the School of Humanity, like Angels on the hill, he has four medals that he keeps in a box.
8. Find one or more grammatical constructions in "Postmen" about which you may question a classmate.
9. Class exercise: Can the class write addresses for letters which would never trouble the postal service? Try it.

Additional Readings. — 1. "Where Dog is King," L. R. McCabe, in *Our Dog Friends, Stories Retold from St. Nicholas*. 2. "The First American Ski Runner," S. Lanier, in *The Book of Bravery*, third series. 3. "Pheidippides," R. Browning. 4. "Carrier Pigeons in the War," in *St. Nicholas*, 46 : 618 620. 5. "The Pony Men," in *St. Nicholas*, 47 : 483–486. 6. "The Human Side of the Postal Service," W. H. Hays, *Review of Reviews*, 64 : 625–640.

2. A PARABLE OF WHITE PAPER

WILLIAM E. BARTON

There spake unto me a man, inquiring, For what art thou most thankful? And I answered and said, I am thankful for so many things, it is difficult to Specify. Not until I have a Cinder in mine Eye or an ache in one Tooth or an hurt on the end of one Finger, do I realize how many are the blessings which I have nearly all the time. But if I am to answer thee

on the instant, I would say that among the things for which I am most thankful, is White Paper.

And he said, I had not thought of that as among life's major blessings.

And I said, I can take a scrap of White Paper and transform it into a Promissory Note which the Bank will accept for an Hundred Shekels. I can make of it a Check which the Butcher or the Baker or the Candlestick Maker will accept for ten shekels as if it were that much in Gold. I can write upon it an Hymn, and it will be sung on the Sabbath in the House of God. I can write a Letter of Comfort that will warm the heart of a friend. I can send tidings beyond the Sea, and convey Information and Affection to lands afar.

And he said, I had not thought of all that.

And I said, When there cometh to me from the Stationer a Package of White Paper, all in even and trimmed sheets, I look at it with a kind of reverence as I consider what shall be the destination of those Five Hundred flat and unsoiled leaves. For with it I can blow up more trouble than with a Stick of Dynamite; and with it I can write that which shall be read by an Hundred Thousand folk.

And he said, I shall think more about Paper hereafter.

And I said, When the great Apostle Paul was in prison, and near to his death, he wrote unto Timothy for the Cloak which he had left at Troas with Crispus; for Winter was coming, and the Jail was cold and damp. And he wrote for his Books, for his mind was alert that he might read. But there was one thing which he wanted even more, and that was something upon which he could write. For he was full of Messages, and he wished for Parchment. Had he lived in the days of Paper, how would his fingers have itched to get at it. Therefore do I thank God for White Paper; and I seek to write nothing that would shame me if I should see it posted upon the Bulletin Board in the town where I reside. For White Paper is a Peril as well as a Blessing; and the Letter Killeth.

CLASS ACTIVITIES

1. What is Barton's main reason for liking white paper? Does the white paper itself perform all the services named?
2. Make a list of other writing materials of which you have read or heard. Make a class list on the blackboard, including all the materials you place in your individual lists. What would be the effect on the cost of reading matter of a return to older materials?
3. Why does this selection have so many capital letters? Copy the first or the last paragraph, changing to small letters all the capitals which would not appear in correct writing or printing to-day.
4. What story have you read recently that made you thankful for white paper?
5. *Volunteer work.* (*a*) Find without help and read the part of Paul's letter to Timothy asking for the cloak. Tell by what device for locating passages in the Bible you were helped and explain how to use it. (*b*) Write three sentences that might have been included in the third paragraph. Follow the style of "A Parable of White Paper." (*c*) Use the encyclopedia to find information about one of these topics and report to the class: 1. How paper is made to-day. 2. The difference between brown and white paper. 3. Early methods of paper-making. 4. The use of parchment in early days. 5. Early printing-presses.

3. INSCRIPTIONS ON THE FEDERAL POST-OFFICE BUILDING

CHARLES W. ELIOT AND WOODROW WILSON

President Woodrow Wilson asked Charles W. Eliot to write inscriptions for the Federal Post-Office Building in Washington. Doctor Eliot wrote inscriptions about the work of life for the east pavilion, and inscriptions about home and social life for the west pavilion. President Wilson revised Doctor Eliot's suggestions, and in the revised form they now appear upon the Post-Office Building. Notice carefully the changes made by President Wilson in Doctor Eliot's suggestions.

INSCRIPTIONS ON THE FEDERAL POST-OFFICE

EAST PAVILION

As written by Charles W. Eliot

CARRIER OF NEWS AND KNOWLEDGE
INSTRUMENT OF TRADE AND COMMERCE
PROMOTER OF MUTUAL ACQUAINTANCE
AMONG MEN AND NATIONS, AND HENCE
OF PEACE AND GOOD WILL

As revised by Woodrow Wilson

CARRIER OF NEWS AND KNOWLEDGE
INSTRUMENT OF TRADE AND INDUSTRY
PROMOTER OF MUTUAL ACQUAINTANCE
OF PEACE AND OF GOODWILL AMONG
MEN AND NATIONS

WEST PAVILION

As written by Charles W. Eliot

CARRIER OF LOVE AND SYMPATHY
MESSENGER OF FRIENDSHIP
CONSOLER OF THE LONELY
BOND OF THE SCATTERED FAMILY
ENLARGER OF THE PUBLIC LIFE

As revised by Woodrow Wilson

MESSENGER OF SYMPATHY AND LOVE
SERVANT OF PARTED FRIENDS
CONSOLER OF THE LONELY
BOND OF THE SCATTERED FAMILY
ENLARGER OF THE COMMON LIFE

CLASS ACTIVITIES

1. Decide by class discussion whether Mr. Wilson or Mr. Eliot was more largely responsible for the final inscriptions. Which of the two had the harder task? Is the first draft of one of your own compositions, in which you are thinking of the meaning, more important than the second draft, in which you revise and improve the meaning? Explain.
2. What did Robert Burns mean when he said: "All my poetry is the effect of easy composition, but of laborious correction"?
3. Tell which of the services named in the inscription is most important for the business of your city. Find out how many letters a day come to your city or leave it. What proportion of these are business letters? Secure this information at the post-office.
4. What services named in the inscriptions are included in "I Like Postmen" (p. 248)?
5. Bring copies of inscriptions upon any public buildings in your city. Discuss their fitness for the buildings.
6. Write an inscription for your school; for your classroom; for the public library; for your home.
7. How is the thought changed by substituting the word *industry* for *commerce* in the second line of the first inscription? Explain the change of *carrier* to *messenger* and of *public* to *common* in the second inscription. Discuss the other changes.
8. *Volunteer work.* When you have your next compositions ready to hand in, try to find three places in which, by changing some words or phrases, you can improve your work.

4. THE SPIDER'S TELEGRAPH-WIRE

JEAN HENRI FABRE

Reading directions: Find (*a*) how Fabre obtained his information; (*b*) how the spider's wire is constructed.

If we look carefully behind the web of any spider with a daytime hiding-place, we shall see a thread that starts from the centre of the web and reaches the place where the spider lurks. The thread is joined to the web at the central point only. Its length is usually about twenty-two inches, but the angular spider, settled high up in the trees, has shown me some as long as eight or nine feet.

This slanting line is a foot-bridge by which the spider hurries to her web when something is going on there, and then, when her errand is finished, returns to her hut. But that is not all it is. If it were, the foot-bridge would be fastened to the upper end of the web. The journey would then be shorter and the slope less steep.

The line starts from the centre of the net because that is the place where the spokes meet, and therefore where the vibration from any part of the net is best felt. Anything that moves upon the web sets it shaking. All that is needed is a thread going from this central point to carry to a distance the news of a prey struggling in some part or other of the net. The slanting cord is not only a foot-bridge: it is a signaling-apparatus, a telegraph-wire.

In their youth, the garden spiders, who are then very wide-awake, know nothing of the art of telegraphy. Only the old spiders, meditating or dozing in their green tent, are warned from afar, by telegraph, of what takes place on the net.

To save herself from the drudgery of keeping a close watch, and to remain alive to events even when resting with her back turned on the net, the hidden spider always has her foot upon the telegraph-wire. Here is a true story to prove it.

An angular spider has spun her web between two shrubs, covering a width of nearly a yard. Because the sun beats upon the snare, the owner abandons it long before dawn. The spider is in her day house, a resort easily discovered by following the telegraph-wire. It is a vaulted chamber of dead leaves, joined together with a few bits of silk. The refuge is deep: the spider disappears in it entirely, all but her hind-quarters, which bar the entrance.

With her front half plunged into the back of her hut, the spider certainly cannot see her web; she could not see it even if she had good sight, instead of being half blind as she is. Does she give up hunting during this period of bright sunlight? Not at all. Look again.

Wonderful! One of her hind-legs is stretched outside the

leafy cabin; and the signaling-thread ends just at the top of that leg.

Whoever has not seen the spider in this attitude, with her hand, so to speak, on the telegraph-receiver, knows nothing of one of the most curious examples of animal cleverness. Let any game appear upon the scene and the slumberer, at once aroused by means of the leg receiving the vibrations, hastens up. A locust which I myself lay on the web gives her this agreeable shock, and what follows? If she is satisfied with her prey, I am still more satisfied with what I have learned.

One word more. The web is often shaken by the wind. The signaling-cord must pass this vibration to the spider. Nevertheless, she does not leave her hut; she remains indifferent to the commotion prevailing in the net. Her line, therefore, is something better than a bell-rope; it is a telephone, capable like our own, of transmitting tiny waves of sound. Clutching her telephone-wire with a toe, the spider listens with her leg; she can tell the difference between the vibration coming from a prisoner and the mere shaking caused by the wind.

CLASS ACTIVITIES

1. Read the part of the selection which told how Fabre obtained his information. What told you how the spider's wire is constructed?
2. Tell the class about the size and shape of spiders' webs that you have seen.
3. Is Fabre right in calling the spider's line a telegraph-wire? Would *signalling-cord* be a better name? Explain.
4. How many ways can you name by which insects, animals, or birds send signals to each other?
5. When a little girl called a telegraph-wire a "message vine," she changed prose into poetry. Of the two following sentences, which is poetry? which is prose?

   "There was a garden in her face Where lilies and red roses blow." — She had a beautiful red-and-white complexion.

   What, then, is one of the differences between prose and poetry?
6. *Volunteer reports:* (*a*) How ants send and receive messages; (*b*) how people "hunt with the camera."

5. UNDER A TELEPHONE-POLE

CARL SANDBURG

Read the following verse slowly; dwell upon each phrase and sentence long enough to think of the exact meaning. Think of one experience that helps you put meaning into one or more of the lines.

I am a copper wire slung in the air,
Slim against the sun I make not even a clear line of shadow.
Night and day I keep singing — humming and thrumming:
It is love and war and money; it is the fighting and the tears, the work and want,
Death and laughter of men and women passing through me, carrier of your speech,
In the rain and the wet dripping, in the dawn and the shine drying,
A copper wire.

CLASS ACTIVITIES

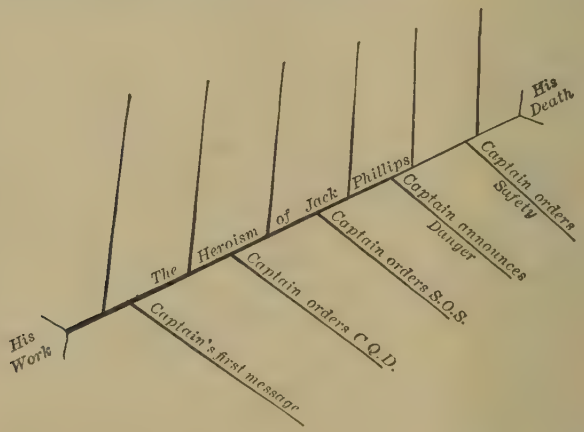
1. What experience helped you put meaning into the poem?
2. Name other poems which glorify things that we usually think commonplace. Name other things as insignificant as copper wire that are of great service to men.
3. What effect is produced by the last line?
4. Point out similarities in meaning between this verse and "The Voices in Space," on p. 243.
5. Read "Under a Telephone Pole" aloud; then read the first stanza of "Postmen," on p. 248. What similarities do you notice? Which is the easiest to read; which the most difficult? Explain.

ADDITIONAL READINGS. — 1. "Talking from Sea to Sea," in *Literary Digest*, 50: 421–423. 2. "Can You Send a Telegram?" H. S. Fullerton, in *American Magazine*, 92: 43–44. 3. "The Greatest Marvel of the Twentieth Century in Electricity," *American Magazine*, 93: 5–7. 4. "Our Animal Allies in the World War," E. H. Baynes, in *Harper's Magazine*, 142: 168–178. 5. "The Ghost on the Wire," R. P. Lowry, in *Scribner's Magazine*, 72: 153–161. 6. "Eavesdropping on the World," O. G. McMeans, *ibid.*, 72: 225–232. 7. "The Flashing Wires That Gird the Earth," *Compton's Pictured Encyclopedia*, 8: 3454–3463. 8. "Telephone and Telegraph," W. C. Reavis, in *Lessons in Community and National Life*, 8–10. 9. "Telephones for the Millions," B. J. Hendrick, *McClure's Magazine*, 44: 45–55.

6. A HERO OF WIRELESS

FRANCIS ARNOLD COLLINS

A diagram of the various parts of this story resembles somewhat a diagram of a tree. Corresponding to the trunk and running through the story is *The Heroism of Jack Phillips*. The parts of the story branch out from the trunk. Copy the diagram and write upon the branch lines names for the acts of Phillips.



The loss of the *Titanic*, one of the most appalling of all sea disasters, will always recall the heroic sacrifice of her wireless man, Jack Phillips. No ship ever put to sea with more confidence in facing danger; until the very last Phillips's faith in his boat was absolute. The great tribute to his courage is that when hope was abandoned, and he found himself face to face with death, he kept firm hold of his courage and stood at his post.

The night of the disaster found Phillips completely tired out from a long vigil in the wireless room. The instrument had broken down during the day and for seven hours Phillips had worked without interruption to locate the trouble. It is easy to imagine what would have happened if he had

neglected the work or had been unable to make the repairs; perhaps the *Titanic's* fate would have remained forever a mystery. Phillips's watch ended ordinarily at midnight; early in the evening, however, his assistant operator, Harold Bride, remembering that Phillips was worn out, offered to relieve him.

At the moment the *Titanic* collided with the iceberg Phillips was receiving and Bride, standing beside him, was urging him to go to bed. The shock of the impact was so slight that the operators went on with their conversation as though nothing had happened. A few minutes later the captain explained that an inspection was being made to discover what damage had been done. He added that they had better prepare to send out a call for assistance. His order was thought to be a mere matter of form; neither operator was the least disturbed.

After ten minutes the captain again appeared in the doorway, still without any appearance of being excited. The sound of confusion on deck reached them, but no one realized the full danger of the situation. The wireless was working perfectly.

"Send out the call for assistance," said the captain.

"Which call, Captain?" Phillips asked.

"The regulation international call for help." And the captain hurried away

The C Q D was instantly flashed out with the entire force of the apparatus, the most powerful then afloat. This continued for five minutes without an answering call, when the captain again appeared in the doorway.

"C Q D," Phillips said, suiting the action to the words.

"Send the S O S," said the captain.

The famous call for help, which will always be remembered in the history of marine disasters, was then sent.

"C Q D, S O S. Rush — rush. *Titanic.*"

As yet the whole affair was not considered serious. Phillips spoke lightly of the situation; all three men laughed. The

captain, with no idea of how grimly prophetic his remark was, said that Phillips might never have another chance to send the alarm call. The *Titanic* was known to be taking water, but it was not thought that she was in any serious danger.

The first steamer to answer the S O S was the *Frankfurt*. Phillips told her briefly that the *Titanic* had struck an iceberg, gave her exact latitude and longitude, and asked for assistance. He still thought that the only assistance needed would be help for the passengers, who might have to be taken off to enable them to reach port more quickly. The operator on the *Frankfurt* left his instrument to report to his captain.

A few minutes later Phillips picked up the *Carpathia*; she answered almost immediately that she had put about and was headed full speed for the *Titanic's* position. Bride, hurrying to the captain with the information, found the decks already crowded with passengers, who were beginning to grow excited. When he returned to the wireless room Phillips was calmly sending detailed directions to the *Carpathia*. He turned from his work and told Bride to put on his clothes. Bride had completely forgotten that he was not yet dressed.

Bride continued to carry messages to the captain, stating the *Carpathia's* speed and exact position. By this time the lifeboats were ready and the first, filled with women and children, was lowered overside. The *Titanic's* list forward was meanwhile rapidly increasing.

A little later the captain again entered the wireless room and said that the engine room was rapidly filling and that the dynamos could not last much longer. Phillips announced this fact to the *Carpathia*. Shortly after, the station at Cape Race was terrified to find the *Titanic* messages blurred and growing gradually weaker.

On deck the confusion was rapidly mounting. The uppermost deck was nearly awash. Almost the last of the boats had left the ship, whose decks were still crowded with more than fifteen hundred of the passengers and crew. For the

first time Bride thought of his life-belt and made his way back to the wireless cabin. Phillips had just picked up the *Olympic* and was announcing that they were sinking rapidly by the head with the upper decks awash. He turned to Bride and asked quietly if all the boats were gone, but without interrupting his message.

Hurrying to the stern, Bride found a dozen men struggling with a collapsible boat. He lent a hand, saw that the boat was safely overside, and returned to Phillips. A moment later the captain made his last call at the wireless cabin.

"Men, you have done your duty," he said. "Abandon your ship. Look out for yourselves."

For fully ten minutes longer Phillips held on, sending the call for help. Bride again returned to the wireless station, shouted a warning to Phillips, and ran aft along the tilting deck. It was the last time he saw Phillips alive. Running to the point where he had helped with the collapsible boat, he found it still alongside. He had time to grasp an oarlock, and the next moment found himself struggling in the water. The boat had overturned. The water was intensely cold and he was on the point of drowning when a friendly hand caught him and drew him into one of the life-rafts, already overcrowded. The waves continually washed over him.

As they floated aimlessly, with each wave threatening to engulf them, some one suggested that they pray. The same voice asked what was the religion of each man. One was a Catholic, another a Methodist, another a Presbyterian. It was decided that the Lord's Prayer was most appropriate and the faltering chorus repeated it to the end.

When, with the early dawn, the *Carpathia* arrived, several, who had been picked up after the *Titanic* went down, were found to have died during the night. Among these was Jack Phillips. He died of exposure before help came.

CLASS ACTIVITIES

1. How did you name the acts of Phillips upon the branches above the main trunk line?

2. What stories of heroism do you recall from *Book One?* Name other stories of heroism. What is heroism? Was the lion tamer in Miss Velvin's story a hero, p. 64? Give reasons for your reply.
3. When and how did Phillips die? Is there any evidence in the story that he was a martyr because of a sense of duty?
4. Have you radio sets at home? What have you heard recently?
5. Name some of the most common uses of wireless. Do you know of other dangers in which the wireless has been of great service?
6. Make a series of clippings which show new uses of the wireless.
7. The popular notion is that the expression "S O S" means "Save our souls." How might this notion have arisen?

CLASS-LIBRARY READINGS

SENDING MESSAGES

1. "The Story in a Newspaper," *Wonder Book of Knowledge,* 172–180.
2. "The Story in a Telephone," *ibid.,* 217–229.
3. "The Story of the Wireless," *ibid.,* 263–267.
4. "Alexander Graham Bell," in *Makers of Our History,* 365–377.
5. "Horace Greeley, Journalist," *ibid.,* 266–277.
6. "Samuel F. B. Morse," *ibid.,* 185–200.
7. "The Message," *Stories of Useful Inventions,* 246–265.
8. "The Book," *ibid.,* 227–245.
9. "The Wonder of the Telephone," *Book of Knowledge,* 2 : 349–352.
10. "The Wonder of a Book," *ibid.,* 3 : 887–898.
11. "How Our Letters Come to Us," *ibid.,* 11 : 3321–3326.
12. "How to Send a Telegram," *ibid.,* 11 : 3519–3531.
13. "Men Who Gave Us Printing," *ibid.,* 12 : 3567–3674.
14. "How Animals Talk to Each Other," *ibid.,* 17 : 5325–5330.
15. "The Man Who First Mastered Wireless," *Compton's Pictured Encyclopedia,* 5 : 2145–2146.
16. "The World's History Delivered At Your Door," *ibid.,* 6 : 2472–2475.
17. "Travels and Adventures of a Letter," *ibid.,* 7 : 2893–2898.
18. "Flashing Words Through Space," *ibid.,* 9 : 3758–3767.
19. "How Mankind Learned to Write," *World Book,* 7 : 3816–3817.
20. "How Paper is Made; Its Priceless Value," *ibid.,* 5 : 2666–2673.

B. OLD-FASHIONED JOURNEYS

1. AN AMERICAN STAGE-COACH JOURNEY

CHARLES DICKENS

Dickens wrote this account of a journey from Baltimore, Maryland, to Harrisburg, Pennsylvania, while on a lecture tour in the United States.

Read to find how many pictures you would need to make, if you were an artist trying to illustrate the funny parts of this story. What would you put in each picture?

After remaining in Baltimore for two days I resolved to set forward on our western journey without more delay. Accordingly, having reduced the luggage within the smallest possible compass, and having procured the necessary credentials to banking-houses on the way, and having, moreover, looked for two evenings at the setting sun, with as well-defined an idea of the country before us as if we had been going to travel to the very centre of that planet, we left Baltimore by another railway at half-past eight in the morning, and reached the town of York, some sixty miles off, by the early dinner-time of the hotel, which was the starting-place of the four-horse coach wherein we were to proceed to Harrisburg.

This conveyance, the box of which I was fortunate enough to secure, had come down to meet us at the railroad station,

and was as muddy and cumbersome as usual. As more passengers were waiting for us at the inn door, the coachman observed under his breath, in the usual self-communicative voice, looking the while at his mouldy harness as if it were to that he was addressing himself:

"I expect that we shall want the *big coach*."

I could not help wondering within myself what the size of this big coach might be, and how many persons it might be designed to hold, for the vehicle which was too small for our purpose was something larger than two English heavy night coaches. My speculations were speedily set at rest, however, for as soon as we had dined there came rumbling up the street, shaking its sides like a corpulent giant, a kind of barge on wheels. After much blundering and backing, it stopped at the door, rolling heavily from side to side when its other motion had ceased, as if it had taken cold; and between that and the having been required in its dropsical old age to move at any faster pace than a walk, were distressed by shortness of wind.

"If here isn't the Harrisburg mail at last, and dreadful bright and smart to look at, too," cried an elderly gentleman, in some excitement.

They packed twelve people inside, and the luggage (including such trifles as a large rocking-horse and a good-sized dining-table) being at last made fast upon the roof, we started off in great state.

At the door of another hotel there was another passenger to be taken up.

"Any room, sir?" cries the new passenger to the coachman.

"Well, there's room enough," replies the coachman, without getting down, or even looking at him.

"There's no room at all, sir," bawls a gentleman inside. Which another gentleman (also inside) confirms, by predicting that the attempt to introduce any more passengers "won't fit nohow."

The new passenger, without any expression of anxiety, looks

into the coach, and then looks up at the coachman. "Now, how do you mean to fix it?" says he, after a pause, "for I *must* go."

The coachman employs himself in twisting the lash of the whip into a knot, and takes no more notice of the question, clearly signifying that it is anybody's business but his, and that the passengers would seem to be approximating to a fix of another kind, when another inside passenger in a corner, who is nearly suffocated, cries faintly, "I'll get out."

This is no matter of relief to the driver, for he is perfectly undisturbed by anything that happens in the coach. Of all things in the world, the coach would seem to be the very last upon his mind. The exchange is made, however, and then the passenger who has given up his seat makes a third upon the box, seating himself in what he calls the middle; that is, with half his person on my legs and the other half on the driver's.

"Go ahead, cap'en," cries the colonel, who directs.

"Go lang!" cries the cap'en to his company, the horses, and away we go.

After we had gone a few miles an intoxicated gentleman, who climbed upon the roof among the luggage, and, subsequently slipped off without hurting himself, was seen in the distance, reeling back to the grogshop where we had found him. We also parted with more of our freight at different times, so that, when we came to change horses, I was again alone outside.

The coachmen always change with the horses, and are usually as dirty as the coach. The first was dressed like a very shabby English baker; the second like a Russian peasant, for he wore a loose purple robe with a fur collar, tied round his waist with a parti-colored worsted sash; gray trousers, light-blue gloves, and a cap of bearskin. It had by this time begun to rain very heavily, and there was a cold, damp mist besides, which penetrated to the skin. I was very glad to take advantage of a stoppage and get down to stretch my

legs, shake the water off my greatcoat, and swallow the usual recipe for keeping out the cold.

When I mounted to my seat again, I observed a new parcel lying on the coach roof, which I took to be a rather large fiddle in a brown bag. In the course of a few miles, however, I discovered that it had a glazed cap at one end and a pair of muddy shoes at the other; and farther observation showed it to be a small boy in a snuff-colored coat, with his arms quite pinioned to his sides by deep forcing into his pockets. He was, I presume, a relative or friend of the coachman's, as he lay a-top of the luggage with his face towards the rain; and, except when a change of position brought his shoes in contact with my hat, he appeared to be asleep. At last, on some occasion of our stopping, this thing slowly upreared itself to the height of three feet six, and, fixing its eyes on me, observed, in piping accents, with a complacent yawn half quenched in an obliging air of friendly patronage: "Well, now, stranger, I guess you find this a'most like an English afternoon, hey?"

The scenery, which had been tame enough at first, was, for the last ten or twelve miles, beautiful. Our road wound through the pleasant valley of the Susquehanna; the river, dotted with innumerable green islands, lay upon our right; and on the left, a steep ascent, craggy with broken rock and dark with pine-trees.

We crossed this river by a wooden bridge, roofed and covered in on all sides, and nearly a mile in length. It was profoundly dark; perplexed, with great beams, crossing and recrossing it at every possible angle; and through the broad chinks and crevices in the floor the rapid river gleamed, far down below, like a legion of eyes. We had no lamps; and as the horses stumbled and floundered through this place, toward the distant speck of dying light, the bridge seemed interminable. As we rumbled heavily on, filling the bridge with the hollow noises, I held down my head to save it from the rafters above; I really could not at first persuade myself that

I was not in a painful dream; for I have often dreamed of toiling through such places, and, as often argued, even at the time, "this cannot be reality."

CLASS ACTIVITIES

1. Describe three pictures which might be made to illustrate the humor of this story.
2. What trait of the driver made him so irritating to his passengers? Tell of acts of courtesy you have seen on the part of railway and street-car workers.
3. Tell the class about the hardest journey you ever made; the funniest; the easiest; the longest.
4. Read carefully the sentence in the first paragraph which contains the words *procured* and *credentials*. What must these words mean to make the sentences have good sense? Do the same with *conveyance* and *cumbersome* in the second paragraph. Guess the meaning of other unfamiliar words by studying the meaning of their use in the sentences. Tell why it is a good plan to do your best to guess the meaning of words, before you look them up in the glossary.
5. If any of you have read about early modes of travel in your book list (p. 246), report to the class now.
6. *Volunteer work.* Try to find a very old person in your town who remembers stage-coach days. Ask him to tell you about them, and report your interview to the class.
7. *Volunteer work.* Read "The Stage Coach" in chap. IV of *Tom Brown's School Days*, by Thomas Hughes; compare the description of the tally-ho with the descriptions of stage-coaches in this book. Contrast the description of Tom's journey to Rugby with the journey of a boy to-day who goes away from home to school.

ADDITIONAL READINGS. — 1. "We Are Seven," K. D. Wiggin, in *Rebecca of Sunnybrook Farm*, chap. I. 2. "The Overland Coach," Mark Twain, in *Roughing It*, chap. IV. 3. "The Boy Who Rode on the First Train," M. K. Maul, in *St. Nicholas*, 35 : 899–901. 4. "When Bicycle Was King," *Scribner's Magazine*, 67 : 635–636. 5. "The Cost of Progress," C. P. Barton, in *Harper's Magazine*, 147 : 462–474. 6. "To Albany by Way of Yesterday," S. Comstock, *ibid.*, 147 : 751–763. 7. "From the Rocket to the St. Louis," J. L. Harbour, in *St. Nicholas*, 33 : 390–403. 8. "Queer Vehicles," *Compton's Pictured Encyclopedia*, 374, 584, 1807, 2874, 3082, 3140. 9. "The Boy's Ambition," Mark Twain, in *Life on the Mississippi*, chap. 5. 10. "The

Old Stage Road," J. T. Faris, in *Real Stories from Our History*, 134–140. 11. "A Pioneer Traveler," *ibid.*, 141–146. 12. "The Great National Road," *ibid.*, 161–168. 13. "The Pony Express," *ibid.*, 196–200.

2. HORACE GREELEY'S RIDE

ARTEMUS WARD

Horace Greeley was a New York editor widely known and honored throughout the United States; at one time he was a candidate for the presidency. This story about Greeley is told by Artemus Ward, one of America's famous humorists. Note the effect of the *unexpected;* of the *awkward situations;* of the gradual change in *Greeley*, and in *Monk*, the two principal characters.

When Mr. Greeley was in California, receptions awaited him at every town. He had written powerful editorials in *The Tribune* in favor of the Pacific Railroad, which had greatly endeared him to the citizens of the Golden State. And therefore they made much of him when he went to see them.

At one town the enthusiastic populace tore his celebrated white coat to pieces and carried the pieces home to remember him by.

The citizens of Placerville prepared to feast the great journalist, and an extra coach with extra relays of horses was chartered of the California Stage Company to carry him from Folsom to Placerville — distance, forty miles. The extra was in some way delayed, and did not leave Folsom until late in the afternoon. Since Mr. Greeley was to be fêted at seven o'clock that evening by the citizens of Placerville, it was necessary that he should be there by that time. So the Stage Company said to Henry Monk, the driver of the extra: "Henry, this great man must be there by seven to-night." And Henry answered: "The great man shall be there."

The roads were in a terrible state, and during the first few miles out of Folsom slow progress was made.

"Sir," said Mr. Greeley, "are you aware that I must be in Placerville at seven o'clock to-night?"

"I've got my orders!" replied Henry Monk.

Still the coach dragged slowly forward.

"Sir," said Mr. Greeley, "this is not a trifling matter. I *must* be there at seven!"

Again came the answer: "I've got my orders!"

But the speed was not increased, and Mr. Greeley chafed away another half-hour; when, as he was again about to remonstrate with the driver, the horses suddenly started into a furious run, and all sorts of encouraging yells filled the air from the throat of Henry Monk.

"That is right, my good fellow," said Mr. Greeley. "I'll give you ten dollars if we get to Placerville on time. Now we are going!"

They were indeed, and at a terrible speed.

Crack, crack! went the whip, and again "that voice" split the air. "Get up! Hi-yi! G'long! Yip-yip!"

And on they tore over stones and ruts, up hill and down, at a rate of speed never before achieved by stage-horses.

Mr. Greeley, who had been bouncing from one end of the stage to the other like an India-rubber ball, managed to get his head out of the window, when he said:

"Do-on't-on't-on't you-u-u think we-e-e-e shall get there by seven if we do-on't-on't go-so-fast?"

"I've got my orders!" That was all Henry Monk said. And on tore the coach.

It was becoming serious. Already the journalist was extremely sore from the terrible jolting — and again his head "might have been seen from the window."

"Sir," he said, "I don't care-care-air if we *don't* get there at seven."

"I've got my orders!" Fresh horses — forward again, faster than before — over rocks and stumps, on one of which the coach narrowly escaped turning a somersault.

"See here!" shrieked Mr. Greeley, "I don't care if we don't get there at all."

"I've got my orders! I work fer the California Stage

Company, I do. That's wot I *work* fer. They said: 'Get this man through by seving.' An' this man's goin' through, you bet! Gerlong! Whoo-ep!"

Another frightful jolt, and Mr. Greeley's bald head suddenly found its way through the roof of the coach, amidst the crash of small timbers and the ripping of strong canvas.

"Stop, you — maniac!" he roared.

Again answered Henry Monk:

"I've got my orders! *Keep your seat, Horace!*"

At Mud Springs, a village a few miles from Placerville, they met a large delegation of the citizens of Placerville who had come out to meet the celebrated editor and escort him into town. There was a military company, a brass band, and a six-horse wagon-load of beautiful damsels in milk-white dresses, representing all the States in the Union. It was nearly dark now, but the delegation was amply provided with torches, and bonfires blazed all along the road to Placerville.

The citizens met the coach in the outskirts of Mud Springs, and Mr. Monk reined in his foam-covered steeds.

"Is Mr. Greeley on board?" asked the chairman of the committee.

"*He was, a few miles back!*" said Mr. Monk. "Yes," he added, looking down through the hole which the fearful jolting had made in the coach roof. "Yes, I can see him! He is there!"

"Mr. Greeley," said the chairman of the committee, presenting himself at the window of the coach, "Mr. Greeley, sir! We are come to welcome you most cordially, sir! — Why, God bless me, sir, you are bleeding at the nose!"

"I've got my orders!" cried Mr. Monk. "My orders is as follows: 'Git him there by seving!' It wants a quarter to seving. Stand out of the way!"

"But, sir," exclaimed the committeeman, seizing the off leader by the reins, "Mr. Monk, we are come to escort him into town! Look at the procession, sir, and the brass band, and the people, and the young women, sir!"

"*I've got my orders!*" screamed Mr. Monk. "My orders say nothin' about brass bands and young women. My orders say: 'Git him there by seving.' Let go the lines! Clear the way there! Whoo-ep! KEEP YOUR SEAT, HORACE!" and the coach dashed wildly through the procession, upsetting a portion of the brass band, and violently grazing the wagon which contained the beautiful young women in white.

Years hence, gray-haired men who were little boys in this procession will tell their grandchildren how this stage tore through Mud Springs, and how Horace Greeley's bald head ever and anon showed itself like a wild apparition above the coach roof.

Mr. Monk was on time. There is a tradition that Mr. Greeley was very indignant for a while; then he laughed and finally presented Mr. Monk with a brand-new suit of clothes. Mr. Monk himself is still in the employ of the California Stage Company, and is rather fond of relating the story that has made him famous all over the Pacific coast. And he says he yields to no man in his admiration for Horace Greeley.

CLASS ACTIVITIES

1. Name the ways by which humor is brought out in this story.
2. How does Henry Monk resemble the driver in Dickens's narrative, p. 263? Find comparisons or contrasts between the coaches in the two stories.
3. What is the climax of this story? What shows the extreme democracy of manners in that early day?
4. Read the lines which show that Greeley gradually changed his haughty manner to a humble one.
5. What details of the hardship of early travel does this story add to the details named in the preceding selections?
6. Try to make these expressions sound as if Henry Monk were saying them:

"I've got my orders."
"*Keep your seat, Horace!*"
"Get up! Hi-yi! G'long! Yip-yip!"
"Gerlong! Whoo-ep!"
"KEEP YOUR SEAT, HORACE!"

Imitate Greeley in these lines:

"I must be in Placerville at seven o'clock."
"My good fellow, I'll give you ten dollars."
"Do-on't-on't go — so — fast."
"I don't care — care — air if we *don't* get there."
"Stop, you — maniac!"

7. *Volunteer work.* Write this story in dialogue form.
8. *Volunteer work.* Find and read one of these or any other poem or story about a horseback ride. Report during the General Review (p. 321).

1. "The Diverting History of John Gilpin," William Cowper.
2. "Tam o' Shanter," Robert Burns.
3. "How They Brought the Good News," Robert Browning.
4. "The Highwayman," Alfred Noyes.
5. "Lochinvar," Sir Walter Scott.
6. "Paul Revere's Ride," Henry Wadsworth Longfellow.
7. "The Legend of Sleepy Hollow," Washington Irving.
8. *The Talisman*, chaps. I, II, Sir Walter Scott.
9. "By the Waters of Babylon," Henry van Dyke.
10. "Sheridan's Ride," Thomas B. Read.
11. "The Legend of Bregenz," Adelaide Proctor.

3. THE LAW OF CLUB AND FANG

JACK LONDON

Buck, a large Newfoundland dog, was stolen from a comfortable home in California, carried by force to Alaska, and sold as a sledge dog to François and Perrault. This is the story of how Buck learned his trade as a "husky." Curly, Spitz, Dave, Billee, Joe, and Sol-leks were his teammates.

You ought to read this story within twelve to fifteen minutes. All start at a given signal, when the clock is on a minute; read as rapidly as you can, but be sure to understand the story. When you have finished, count the number of minutes. If there are about three hundred and thirty words to the page, how rapid is your rate of silent reading?

Buck's first day on the beach was like a nightmare. Every hour was filled with shock and surprise. He had been suddenly jerked from the heart of civilization and flung into the heart of savagery. No lazy, sun-kissed life was this, with

nothing to do but loaf and be bored. Here was neither peace, nor rest, nor a moment's safety. All was confusion and action, and every moment life and limb were in peril. There was imperative need to be constantly alert; for these dogs and men were not town dogs and men. They were savages, all of them, who knew no law but the law of club and fang.

He had never seen dogs fight as these wolfish creatures fought, and his first experience taught him an unforgetable lesson. It is true, he was only a witness of the experience, else he would not have lived to profit by it. Curly was the victim. The dogs were camped near the log store, where she, in her friendly way, made advances to a husky dog the size of a full-grown wolf, though not half so large as she. There was no warning, only a leap in like a flash, a metallic clip of teeth, a leap out equally swift, and Curly's face was ripped open from eye to jaw.

It was the wolf manner of fighting, to strike and leap away; but there was more to it than this. Thirty or forty huskies ran to the spot and surrounded the combatants in an intent and silent circle. Buck did not comprehend that silent intentness, nor the eager way with which they were licking their chops. Curly rushed her antagonist, who struck again and leaped aside. He met her next rush with his chest, in a peculiar fashion that tumbled her off her feet. She never regained them. This was what the onlooking huskies had waited for. They closed in upon her, snarling and yelping, and she was buried, screaming with agony, beneath the bristling mass of bodies.

So sudden was the attack, and so unexpected, that Buck was taken aback. He saw Spitz run out his scarlet tongue in a way he had of laughing; and he saw François, swinging an axe, spring into the mess of dogs. Three men with clubs were helping him to scatter them. It did not take long. Two minutes from the time Curly went down, the last of her assailants were clubbed off. But she lay there limp and lifeless in the bloody, trampled snow, almost literally torn to

pieces, the swart half-breed standing over her and cursing horribly.

The scene often came back to Buck to trouble him in his sleep. So that was the way. No fair play. Once down, and that was the end. Well, he would see to it that he never went down. Spitz ran out his tongue and laughed again, and from that moment Buck hated him with a bitter and deathless hatred.

Before he had recovered from the shock caused by the tragic passing of Curly, he received another shock. François fastened upon him an arrangement of straps and buckles. It was a harness, such as he had seen the grooms put on the horses at home.. And as he had seen horses work, so he was set to work, hauling François on a sled to the forest that fringed the valley, and returning with a load of fire-wood. Though his dignity was sorely hurt by thus being made a draft animal, he was too wise to rebel. He buckled down with a will and did his best, though it was all new and strange.

François was stern, demanding instant obedience, and by virtue of his whip receiving instant obedience; while Dave, who was an experienced wheeler, nipped Buck's hind quarters whenever he was in error. Spitz was the leader, likewise experienced, and while he could not always get at Buck, he growled sharp reproof now and again, or cunningly threw his weight in the traces to jerk Buck into the way he should go.

Buck learned easily, and under the combined teaching of his two mates and François made remarkable progress. Ere they returned to camp he knew enough to stop at "ho," to go ahead at "mush," to swing wide on the bends, and to keep clear of the wheeler when the loaded sled shot down-hill at their heels.

By afternoon, Perrault, who was in a hurry to be on the trail with his despatches, returned with two more dogs; "Billee" and "Joe" he called them, two brothers, and true huskies both. Sons of the one mother though they were, they

were as different as day and night. Billee's one fault was his excessive good nature, while Joe was the very opposite, with a perpetual snarl and a malignant eye.

Buck received them in comradely fashion, Dave ignored them, while Spitz proceeded to thrash first one and then the other. Billee wagged his tail as if to make friends, turned to run when he saw that his friendliness was of no avail, and cried when Spitz's sharp teeth scored his flank. But no matter how Spitz circled, Joe whirled around on his heels to face him, mane bristling, ears laid back, lips writhing and snarling, jaws clipping together as fast as he could snap, and eyes gleaming; fear made him ready to fight. So terrible was his appearance that Spitz was forced to forego disciplining him; but to cover his own chagrin he turned upon the inoffensive and wailing Billee and drove him to the confines of the camp.

By evening Perrault secured another dog, an old husky, long and lean and gaunt, with a battle-scarred face and a single eye which flashed a warning of prowess that commanded respect. He was called Sol-leks, which means the Angry One. Like Dave, he asked nothing, gave nothing, expected nothing; and when he marched slowly and deliberately into their midst, even Spitz left him alone.

Sol-leks had one peculiarity which Buck was unlucky enough to discover. He did not like to be approached on his blind side. Of this offense Buck was unwittingly guilty, and the first knowledge he had of his carelessness was when Sol-leks whirled upon him and slashed his shoulder to the bone for three inches up and down. Forever after Buck avoided his blind side, and to the last of their comradeship had no more trouble. Sol-leks's only apparent ambition, like Dave's, was to be left alone; though, as Buck was afterward to learn, each of them possessed one other and even more vital ambition.

That night Buck faced the great problem of sleeping. The tent, lighted by a candle, glowed warmly in the midst of the white plain; and when he, as a matter of course, entered it, both Perrault and François bombarded him with cooking

utensils, till he recovered from his fear and surprise and fled into the outer cold.

A chill wind was blowing that nipped him sharply and bit with especial venom into his wounded shoulder. He lay down on the snow and attempted to sleep, but the frost soon drove him shivering to his feet. Miserable and uncomfortable, he wandered about among the many tents, only to find that one place was as cold as another. Here and there savage dogs rushed upon him, but he bristled his neck hair and snarled (for he was learning fast), and they let him go his way.

Finally, an idea came to him. He would return and see how his own team-mates were making out. To his astonishment they had disappeared. Again he wandered about through the great camp, looking for them, and again he returned. Were they in the tent? No, that could not be, else he would not have been driven out. Then where could they possibly be? With drooping tail and shivering body, very forlorn indeed, he aimlessly circled the tent. Suddenly the snow gave way beneath his fore legs and he sank down. Something wriggled under his feet. He sprang back, bristling and snarling, fearful of the unseen and unknown.

But a friendly little yelp welcomed him, and he went back to investigate. A whiff of warm air ascended to his nostrils, and there, curled up under the snow in a snug ball, lay Billee. He whined, squirmed, and wriggled to show his good-will and intentions, and even ventured, as a bribe for peace, to lick Buck's face with his warm wet tongue.

Another lesson. So that was the way they did it, eh? Buck confidently selected a spot, and with much fuss and waste effort proceeded to dig a hole for himself. In a trice the heat from his body filled the confined space and he was asleep. The day had been long and laborious, and he slept soundly and comfortably, though he growled and barked and wrestled with bad dreams.

Nor did he open his eyes till roused by the noises of the waking camp. At first he did not know where he was. It

had snowed during the night and he was completely buried. The snow walls pressed him on every side, and a great surge of fear swept through him — the fear of the wild thing for the trap. The muscles of his whole body quivered and jerked, the hair on his neck and shoulders stood on end, and with a ferocious snarl he bounded straight up into the blinding day, the snow flying about him in a flashing cloud. Ere he landed on his feet, he saw the white camp spread out before him and knew where he was and remembered all that had passed from the time he had strolled into the tent to the time he had dug a hole for himself the night before.

A shout from François hailed his appearance. "Wot I say?" the dog-driver called to Perrault. "Dat Buck for sure learn queek as anyt'ing."

Perrault nodded gravely. As courier for the Canadian Government, bearing important despatches, he was anxious to secure the best dogs, and he was particularly gladdened by the possession of Buck.

Three more huskies were added to the team inside an hour, making a total of nine, and before another quarter of an hour had passed they were in harness and swinging up the trail toward the Dyea Canyon. Buck was glad to be gone, and though the work was hard he found he did not particularly despise it. He was surprised at the eagerness which animated the whole team, and which was communicated to him; but still more surprising was the change wrought in Dave and Sol-leks. They were new dogs, utterly transformed by the harness. All unconcern had dropped from them. They were alert and active, anxious that the work should go well, and fiercely irritable with whatever, by delay or confusion, retarded that work. The toil of the traces seemed the supreme expression of their being, and all that they lived for and the only thing in which they took delight.

Dave was wheeler or sled dog, pulling in front of him was Buck, then came Sol-leks; the rest of the team was strung out ahead, single file, to the leader, which position was filled by Spitz.

Buck had been placed purposely between Dave and Sol-leks so that he might receive instruction. Apt scholar that he was, they were equally apt teachers, never allowing him to linger long in error, and enforcing their teaching with their sharp teeth. Dave was fair and very wise. He never nipped Buck without cause, and he never failed to nip him when he stood in need of it. As François's whip backed him up, Buck found it to be cheaper to mend his ways than to retaliate. Once, during a brief halt, when he got tangled in the traces and delayed the start, both Dave and Sol-leks flew at him and administered a sound trouncing. The resulting tangle was even worse, but Buck took good care to keep the traces clear thereafter; and ere the day was done, so well had he mastered his work, his mates almost ceased nagging him. François's whip snapped less frequently, and Perrault even honored Buck by lifting up his feet and carefully examining them.

That day they made forty miles, the trail being packed; but the next day, and for many days to follow, they broke their own trail, worked harder, and made poorer time. As a rule, Perrault travelled ahead of the team, packing the snow with webbed shoes to make it easier for them. François, guiding the sled, sometimes exchanged places with him, but not often.

Day after day, for days unending, Buck toiled in the traces. Always they broke camp in the dark, and the first gray of dawn found them hitting the trail with fresh miles reeled off behind them. And always they pitched camp after dark, eating their bit of fish and crawling into the snow. Buck was ravenous. The pound and a half of sun-dried salmon which was his ration for each day seemed to go nowhere. He never had enough, and suffered from perpetual hunger-pangs. Yet the other dogs, because they weighed less and were born to the life, received a pound only of the fish and managed to keep in good condition.

Buck swiftly lost the daintiness which had characterized his old life. A slow eater, he found that his mates, finishing first,

robbed him of his unfinished ration. There was no defending it. While he was fighting off two or three, it was disappearing down the throats of the others. To remedy this, he ate as fast as they; and, so greatly did hunger compel him, he was not above taking what did not belong to him. He watched and learned. When he saw Pike, one of the new dogs, a clever thief, slyly steal a slice of bacon when Perrault's back was turned, he attempted the same performance the following day, getting away with the whole chunk. A great uproar was raised, but he was unsuspected; while Dub, an awkward blunderer who was always getting caught, was punished for Buck's misdeed.

This first theft marked Buck as fit to survive the hostile Northland surroundings. It marked his ability to adjust himself to changing conditions, the lack of which would have meant swift and terrible death. It marked, further, the decay or going to pieces of his moral nature, a vain thing and a handicap in the ruthless struggle for existence. It was all well enough in the Southland, under the law of love and fellowship, to respect private property and personal feelings; but in the Northland, under the law of club and fang, whoso took such things into account was a fool, and in so far as he observed them he would fail to prosper.

Not that Buck reasoned it out. He was fit, that was all, and unconsciously he adjusted himself to the new mode of life. All his days, no matter what the odds, he had never run from a fight. He did not steal for joy of it, but because of the clamor of his stomach. He did not rob openly, but stole secretly and cunningly, out of respect for club and fang. In short, the things he did were done because it was easier to do them than not to do them.

His development (or change for the worse) was rapid. His muscles became hard as iron, and he grew indifferent to all ordinary pain. He could eat anything, no matter how loathsome or indigestible; and, once eaten, the juices of his stomach extracted the last least particle of nourishment, and his blood

carried it to the farthest reaches of his body, building it into the toughest and stoutest of tissues. Sight and scent became remarkably keen, while his hearing developed such acuteness that in his sleep he heard the faintest sound and knew whether it heralded peace or peril.

He learned to bite the ice out with his teeth when it collected between his toes; and when he was thirsty and there was a thick scum of ice over the water-hole, he would break it by rearing and striking it with stiff fore legs. His most outstanding trait was an ability to scent the wind and forecast it a night in advance. No matter how breathless the air when he dug his nest by tree or bank, the wind that later blew inevitably found him on the side away from the wind, sheltered and snug.

And not only did he learn by experience, but instincts long dead became alive again. In vague ways he remembered back to the youth of his breed, to the time the wild dogs ranged in packs through the primeval forest and killed their meat as they ran it down. It was no task for him to learn to fight with cut and slash and the quick wolf snap. In this manner had fought his forgotten ancestors. They quickened the old life within him, and the old tricks which they had stamped into his breed were his tricks. They came to him without effort or discovery, as though they had been his always. And when, on still, cold nights, he pointed his nose at a star and howled long and wolf-like, it was his ancestors, dead and dust, pointing nose at star and howling down through the centuries through him. And his cries were the cries which had voiced their woe and what to them was the meaning of the stillness, and the cold, and dark.

— *Adapted.*

CLASS ACTIVITIES

1. What was Perrault's business? Why did he want good dogs?
2. How rapid is your rate of silent reading for this story? Who needs to speed up? Who, to slow down? Probably those are

the best readers whose rates are midway between the slowest and the most rapid in the class.

3. Draw four large links in a chain and write in them titles for the main incidents of this story.
4. Think of the chief trait of each dog. What one adjective would you use to characterize each of them?
5. Is the title of the story well chosen? What was "the law of club and fang"? Suggest another title for the story.
6. Compare the last paragraph on p. 280 with "The Taming of Animals," p. 69. Would Mitchell regard Buck's change as development upward or downward? Tell the class about dogs which learned to do various tasks or tricks. What other uses of dogs have you read about in your geographies or other books?
7. Make a list of words the meanings of which you cannot guess from the story. Look them up in the glossary.
8. *Volunteer reading.* Read London's *The Call of the Wild* to see how Buck and Spitz became mortal enemies and fought to the death; how Buck was brutally treated, almost killed, and saved by a friend; how Buck repaid his friend's kindness; how he became as wild as his ancestors, and the leader of a pack of wolves.

ADDITIONAL READINGS. — 1. "The Sagacity and Courage of Dogs," E. H. Baynes, in *National Geographic Magazine*, 35: 253–275. 2. "Mankind's Best Friend," E. H. Baynes, *ibid.*, 35: 185–201. 3. *My Life with the Eskimos*, V. Stefansson. 4. *Adrift on an Ice Pan*, W. T. Grenfell. 5. *A Wilderness Dog*, Clarence Hawkes. 6. *Rab and His Friends*, John Brown. 7. *Bob, Son of Battle*, Alfred Ollivant. 8. *A Dog of Flanders*, Louise De la Ramée. 9. *Famous Dogs in Fiction*, J. Walker McSpadden. 10. *Stikeen*, J. Muir. 11. *Lad, A Dog*, Albert Payson Terhune.

CLASS-LIBRARY READINGS

OLD-FASHIONED JOURNEYS

1. "The Story of the Motorcycle," *Wonder Book of Knowledge*, 52–58.
2. "The Growth of the Motor Truck," *ibid.*, 481–489.
3. "The Carriage," *Stories of Useful Inventions*, 168–189.
4. "The Platte and the Desert," F. Parkman in *The Promise of Country Life*, 31–43.
5. "How Our Ancestors Traveled," *Book of Knowledge*, 19: 6105–6112.
6. "Man's Oldest and Most Faithful Friend," *Compton's Pictured Encyclopedia*, 3: 1018–1025.
7. "The Father of the Steam Boat," *ibid.*, 4: 1381–1382.
8. "The Four-Footed Ship of the Desert," *ibid.*, 2: 588–590.
9. "Picture Story of Transportation," *ibid.*, 9: 3998.

C. ANNIHILATING DISTANCE BY LAND

1. BEATING TIME AND SPACE

HAROLD ORDWAY RUGG

Find the writer's purpose in writing this imaginary story. Determine whether he accomplishes his purpose.

"What's that? What's that?" Bob Sanderson, New York office manager of the Flick Rubber Company Ltd. nearly dropped the telephone receiver in his excitement. "Say that again, Mac."

Back over the wire came the voice of the Western manager in his Chicago office: "I say, old man Steiger tells me that the big Thompson rubber contract is to be awarded to-morrow morning at a special meeting of the Continental Trust. Now get this and in a hurry, too. Either the chief or you must be in Chicago to-morrow. Better both come."

"Can't be done, Mac. Chief is at his place at Norwalk."

"It's got to be done. There's millions in this contract. Mr. Flick must be on hand to present our case. Meeting's at ten, room 717, Exchange Building. See that he gets the Twentieth Century Limited. It's now 2:32 Eastern Standard Time. The Century leaves New York at 2:45. You can get a cab and catch it. It stops at Harmon for five minutes to leave the electric engine and put on the locomotive. You've got an hour and a quarter to get him from Norwalk to Harmon and thirteen minutes to make it yourself. Rush it."

Sanderson hung up the receiver and things hummed in the New York offices of the Flick Rubber Company. In two minutes the senior partner was acquainted with the situation over the private telephone that connected his country home at Norwalk with his New York City office. In five more his chauffeur was driving the big roadster out of the garage. Questions thrown at the chief concerning important business matters of the day were answered by a short, "I'll wire you what to do from the Century. Stay near the telephone all day, and keep in touch with Western Union. I'll relay everything to you."

Five minutes later the automobile was eating up the twenty-five mile stretch to Harmon, and when the Twentieth Century Limited pulled into the station, Mr. Flick was waiting at the platform.

"Close connection, sir?" asked Sanderson as he boarded the train.

"Yes, but we made it easily. Couldn't have done that twenty years ago. Good long-distance service, private wires, sixty horse-power motor, fine roads, and trains absolutely on time — that's what good transportation is, Sanderson. Now we've got nineteen hours to get ready to sell Thompson our rubber to-morrow morning in Chicago. Let's get to work in my stateroom. Tell me all you know about this and we'll get in touch with Mac in Chicago by wire."

He chuckled as he settled down to work. "It's rather giving the slip to old Joe Telford. He's expecting me to speak at a Chamber of Commerce dinner in New York, this evening. I sent word that I had an important errand out of town. Guess he'll think so when he finds out what it was. He's the only rubber man I'm afraid of, with Gorham out in California on a vacation."

The next morning at breakfast on the train Flick read an item in the paper mentioning Telford's speech and his own absence from the New York dinner. Sharply at 9:45 the Century rolled into the La Salle Street station at Chicago; the two men

stepped into a waiting car that MacLean, the Chicago manager, had ready, drove quickly to the Exchange Building, and, to the astonishment of their Western competitors, appeared at the offices of the Continental Trust.

But a moment later it was Mr. Flick's turn to be surprised, for as he greeted the business men in the room he was amazed to receive a smiling handshake from the man he had left behind him.

"The Twentieth Century of the New York Central, or the Broadway Limited of the Pennsylvania may be fast — but let me tell you something that's faster, John Flick," said Telford.

"How did you get here?" exclaimed Flick in the midst of a chorus of laughter from the group around the table. "Sanderson said he was positive that you were at a meeting in your office when the Century left, and I have just read the mention of your speech last night."

"That's right, I made it — and it was right there that I heard about this meeting. But I'm here anyway. Want to know how I did it? You thought you'd steal a march on me. Well, you forgot just one thing — the airplane service from Long Island, New York, to Grant Park, Chicago. I caught the tubes under the river to the flying field on Long Island at 10:20 last night, bought the rights in an airplane, practically had to kidnap an air pilot, and just got out of his machine over in the park five minutes ago. Eleven hours and fifteen minutes on the way, and lost time at that. Fine ride, though. Had motor trouble near Cleveland and had to come down for what seemed like a week. Fog bothered my pilot, too. And now, gentlemen, will you let me tell you why you should buy Telford Rubber for your tire plant, and not my old friend Flick's product?"

"We'll be glad to hear from you both," said the presiding officer, "but it's only fair for you to know that you'll have to make better terms than we think you can, to beat the offer that John Gorham made us before either of you got here."

"Has Gorham been telegraphing from the Coast?" asked Mr. Flick.

"No," was the answer. "Gorham is up-to-date as well as you gentlemen. He's been talking to us by radio. We have our own amplifier in the room, and he certainly made us a convincing speech. Now we are ready to hear from you, and we'll listen to you in the order of your arrival."

CLASS ACTIVITIES

1. To test your reading, see if you can make a list of the events which concern each man separately: Sanderson, Flick, Telford, and Gorham. Check and correct your list after a second reading.
2. What means of communication are named in this selection? Name those you have used yourself. Which have been used by people you know personally? Which have you seen but not used?
3. Make a set of questions to bring out the purpose for which this selection was written.
4. What new information have you gained from this reading? Go back and get one definite fact about travel or messages from each part of the story.

ADDITIONAL READINGS. — 1. "Darius Green and His Flying Machine," John Townsend. 2. "The First Air Voyage," Sidney Lanier, in *The Book of Bravery*, Second Series.

2. THE FIREMAN

ANONYMOUS

There is one feature of this story which is probably not true to actual life on a railroad. Find what that improbability is. Then decide whether it spoils the tale as a story.

On the payroll of the M. C. Railroad, he was plain Charles Gannet, Fireman, but he was destined to get a great opportunity to "make good." This is how it came about.

The two termini of the road, now grown to be "sixth" cities, demanded ten-hour trains instead of the twelve-hour expresses that had previously been their pride. Five new Pacific type locomotives of superb dimensions had been pur-

chased for service on the "Limited" trains. The new engines were put on local service for two weeks to limber them up, and then they were to be given fast runs. Number 3115, however, was placed in Limited service in a week's time, because of the wrecking of the old engine which hauled the "Autocrat," as the Limited train was called.

On the night of 3115's third trip at the head of six shining Pullmans, the weather seemed to be determined to make her task a Herculean one. A roaring northwest gale swept in over the prairies and the great lake, driving angry needles of sleet in spluttering volleys against the cab windows. The electric arc-lights under the train shed which sheltered the Pullmans, swayed and blinked in the swirling ice storm which tore up the platforms and lost itself among the strings of coaches waiting on deserted tracks.

Ten o'clock! — with the first stroke of the great station clock, two sharp hisses sounded in the darkened cab of 3115, and Frank O'Neil and Charles Gannet, engineer and fireman, straightened their backs and set themselves for a seven hours' run. The great engine barked twice; then came a furious snorting and a shower of sparks as the drivers spun around on the sleety rails. O'Neil's master-hand quickly eased the head of steam in the cylinders, and 3115 crept cautiously over the switches and frogs, past winking green and red lights toward the throat of the yard.

Six toasted Pullmans with dusted chairs and polished brass glided quietly out into the roaring storm. The barks of the locomotive grew louder and then dropped to a muffled throb as O'Neil hooked her back on the reverse lever. The last switch clicked by, and the green and red lights whisked past as O'Neil settled back on his wooden shelf and opened the throttle another notch.

The wind roared back along the great black boiler and drove clouds of steam and smoke scudding past the window that was half closed to keep the sleet from bruising O'Neil's face and body.

Above the throb of the exhaust, the roll of the sleet driving against the cab made inaudible all but the shrillest shrieks of the wind. Gannet was pulling open the chains of the furnace door, and shovelling great scoops of coal into the white-hot furnace. Each time he opened the furnace doors, the light turned the sleet to a golden shower, and the smoke and steam clouds to great pink banners in the sky. The little gauge lamp bobbed and blinked at the two silent figures, one motionless in his seat, gazing into the outer darkness, the other bending and swinging like a piece of machinery. Ten tons of coal were to be fed into the bottomless furnace; no child's play that, on a lurching, jumping express engine! A curve, and the right side of the cab rises suddenly and shakes and quivers as if to tear itself from some terrific force.

Back in the Pullmans, men with cigars in their mouths converse in languid tones, and yawn. In the car behind, two children scamper down the aisle to get a cup of water, and come trudging back to their mother with a brimming cup. Two men across the aisle have had the porter set a table upon which they are playing chess, with occasional interruptions as the children bump the tables.

The white beam of the electric headlight sways along the track, and greets each bridge or culvert with a fleeting wink. The glass on O'Neil's window is now glazed with ice, and after tugging his cap tighter over his ears and turning the visor lower over his eyes, he slides the protecting shield aside, and faces the jagged bolts of ice that shriek around the boiler head and burst to fragments when they hit the window-frame. Gannet has been trying the injectors and wipes the sweat from his face so that he may get a look at the quivering needle on the steam gauge. One hundred and ninety-six pounds of steam; not enough — 210 is what she should carry. He swings open the furnace doors and piles scoopful upon scoopful of coal into the flames. As Gannet straightens his back once more, he sees O'Neil's nostrils dilate as he draws his head in from the pelting outside. O'Neil's left hand

swings the long lever forward and his right "feels" the air.

"Whr — Whr —-" he shouts above the roar to Gannet.

Gannet jumps to the gangway on his side of the cab and looks back. "Trr — whr — r" he shouts back. The engine stiffens forward in the grasp of the air-brakes and the Pullmans grrrrrr-rr as the big bogy trucks feel the grip. Before the train has come to a full stop, Gannet has disappeared through the gangway on his side of the cab. O'Neil follows with a monkey-wrench. The wind rips open his coat and his hat is switched off his hand. The wrench in his hand becomes slippery with ice. A tender truck-wheel has a hot box, because it was not run in long enough in local service. Gannet has pulled the flaming waste and grease out of the journal box and is busy repacking it. A hose is screwed into one side of the box so that water from the tender can keep it cool.

The conductor comes staggering up in a rubber coat. Back in the Pullmans, a passenger suddenly takes his feet from the window-sill, and leans forward to peer out into the dark.

"Why, the train has stopped," he exclaims in amazement. "I wonder how long we have been here?" "Where are we?" Then harsh criticism is leveled at the road for wretched service and delays.

Outside, two drenched, sleet-covered figures toil over a bent hose-coupling. After twenty minutes of finger skinning with the frozen wrench, the coupling is screwed in. Two sharp blasts from the engine-whistle call back the brakeman, who has been leaning against the platform of the last car, sheltered from the sleet, and valiantly holding a red lantern.

O'Neil, stiff and all but frozen, sits propped up on the right side of the cab, his bleeding face peering out into the driving ice, as 3115, steaming to her limit through Gannet's superb efforts, is making up lost time.

A roar, a dull rumble, and the clicking of switches startles Gannet as he is reaching for the "injector choke valve." He looks quickly at O'Neil, who is still leaning out of the window.

Gannet knows that they should never take the D——t viaduct at any such speed as they are going now. He pulls O'Neil's arm; it falls limp by his side, and O'Neil's head nods forward on the window-seat. Quick as a flash, Gannet snaps the throttle shut and gives her a pinch of air to steady the train. As the engine rolls smoothly at reduced speed, he pulls O'Neil down to the cab floor.

Unconscious, pummeled and slashed by the ice, clothes frozen on his body, O'Neil falls stiffly to the floor. Gannet, neglecting the sorry condition of his engineer, gazes intently ahead through the swirling sleet at the ever changing signal lights. Soon the yard is past, and as the last switch clicks under wheel and its green light sweeps by, Gannet steps down on the cab floor, and tenderly lifts O'Neil's limp form over to the left side of the cab, and there, wrapped in the canvas storm curtain which Gannet has torn from its hooks, O'Neil rests in a heap.

As soon as Gannet sees that there is no danger of O'Neil's tumbling to the floor through the sudden lurching of the engine, he again goes over to the right side. Peering ahead for a moment to get his bearings and seeing a signal light go by, in frenzied haste he shovels some coal into the half empty firebox. Then he opens the try-cocks and after running the injectors until the water is at the top cock, he pulls the throttle open to the last notch and 3115 paws over the steel in a way to make many a passenger engineer blanch with fear.

How Gannet acted as engineer and fireman on the "Autocrat" that night is a golden page in railroad history. Now raking and feeding the fire, now trying the injectors, now peering out of the cab window into the murderous rain and sleet, and then glancing at the steam and air gauges, Gannet acted like a man possessed, jumping, staggering in the cab of the roaring engine. Twice in his fleeting glances out of the cab window he saw the "red" showing ahead. Firmly he checked her mile-a-minute gait and let the air ease off so that the Pullmans rolled quietly over the cross-over, and then

with a jerk he opened the throttle so that the couplings had no time to slack up and snap the Pullmans as the engine jumped forward. For five hours, the solitary figure spurred the 1500 horse-power steed into the teeth of the storm. The steel sides of the tank were white with ice, and the olive green of the Pullmans had blended to a lead-gray color. Great icicles hung under the running board and steps of the cab.

As dawn tinged the blackness of the storm with gray, the long train slowed down for the terminal yards with a spluttering of locked wheels on the "whiskered" frosty rails. Slowly 3115 nosed her way past day coaches and "diners" in the storage yards, and just as the station clock pointed to ten minutes past eight, the gray streaked locomotive came to a stop in front of the bumper of track 1.

Ten minutes late!—The "Autocrat" was ten minutes late! How those business men back in the Pullmans jostled and squeezed each other as they lined up in the aisles of the cars, suit cases in hand, waiting for the porter to lift the trap door and let them down the steps to the platform. Nor did their sneering remarks cease as they walked past the great gray dripping engine, panting softly in the heavy air of the train shed. They glanced casually up at the cab and saw a coal-blackened face with bloodshot eyes, looking listlessly down at them. Even the icicles on the running board and the crystals on the cab windows failed to excite their comment.

Three days later, O'Neil, lying in a white cot at the hospital with a bad case of pneumonia, received a gold watch from the company, together with a note saying that he would receive full pay until his recovery was complete.

As for Gannet, the following Monday when he reported at the round-house for work, he found another fireman on Number 3115. When he interviewed the superintendent, and asked him what engine he had been transferred to, the "super" turned on his heel and said, "3115 will haul the 'Autocrat' to-day; back her down at 9:45." In other words, 3115 was his engine. He had been promoted to the right side!

CLASS ACTIVITIES

1. What is the improbable element? Do you think it spoils the story? Tell about other good stories which have contained improbable incidents. What, then, is one difference between stories like this and explanations found in history or science?
2. Account for Gannet's promotion. Give your explanation under three heads. Find the paragraph which best describes the responsibilities of enginemen. Tell the class of similar acts which required great presence of mind on the part of enginemen.
3. Select three adjectives which you think best describe Gannet. What three passages show how unreasonable passengers sometimes are?
4. Make another title for this story, and tell why you selected it. What is the climax of the story?
5. What comparison or contrast can you find between "Rushing Freight to New York," p. 221, and the present story?
6. It is said that more than eighty per cent of the children of locomotive engineers are graduated from high schools. What do you think are the chief causes for this fact?
7. Each find five words in "The Fireman" whose meaning may not be quite clear to a classmate. Write the five words on a sheet of paper. Exchange sheets, and try to write the meaning of the five on the sheet you receive. You may point out to each other the sentences in which the words occur. Try to make satisfactory definitions from the meaning of the sentences without using the glossary or dictionary.
8. *Volunteer work:* Find "The Pony Engine and the Pacific Express," W. D. Howells, in *Christmas Every Day and Other Stories*, a story written for small children. Try reading it aloud to some child who enjoys a good story.

3. THE FIRST RAILROAD ACROSS THE CONTINENT

HOWARD C. HILL

Read the entire selection without stopping. When you have finished, write the three most important facts you have gained from the narrative.

The gold seeker, bound for the California diggings in 1849, undertook a journey of at least four months through an un-

settled and dangerous country. Nowadays a tourist who leaves Omaha for San Francisco passes through a region containing millions of prosperous inhabitants and arrives at his destination in two days without needing to lose a single meal or a wink of sleep. The lumbering prairie schooner has given way to a luxurious train.

The first suggestion for a railway to the coast was made about 1835. By 1840 the plan had become popular and was discussed repeatedly in newspapers and magazines. Asa Whitney gave up his business and spent all his time urging its establishment. Thomas H. Benton, a Senator from Missouri, never grew tired of emphasizing the value of the oriental commerce which would enrich America when once a railway was extended to the Pacific. On one occasion he proposed that when the line was completed a huge statue of Columbus be hewn from one of the granite peaks of the Rockies, "pointing with outstretched arm to the western horizon and saying to the flying passengers, 'There is the East; there is India.'"

Realizing the political and military importance, as well as the economic value of a railway, the Government authorized extensive surveys. Frémont and others explored the mountains for years, seeking the most favorable routes. The annexation of Oregon and the Southwest, followed by the gold discoveries in 1848, gave fresh impetus to the proposal. During one year five different surveying parties were sent out. Finally it appeared that the best route lay through Mexico.

For the possession of the eastern terminus of the railway there was keen rivalry among various cities, Memphis, St. Louis, Chicago, and Milwaukee being the chief competitors. Northerners wanted a northern route; southerners wanted one through the South.

In the meantime the people of California hoped, prayed, and worked for a railway. In 1861, some leading men of that state organized the Central Pacific, which was to be the California branch of the transcontinental railroad. Their chief engineer hurried to Washington to present plans and urge

action. In 1862, Congress after a long debate voted to incorporate the Union Pacific Railroad Co., which was to be the eastern company to connect with the California railroad.

The terms offered to the company were generous. The road was to have a right of way four hundred feet wide across the continent. It was to receive ten sections of land for each mile of track built, and the Government promised to advance large sums in government bonds to help construction. President Lincoln, who had been keenly interested in the project for years, and who had been authorized to select the eastern terminus, chose Council Bluffs, Iowa.

The Central Pacific Co. promptly began work at the California end of the line, turning the first sod on Washington's Birthday, 1863. Eastern business men were reluctant to put money into the enterprise, believing it would never pay a return on the investment. Not until 1864, when Congress doubled the land grant and offered certain other inducements, did capitalists put their money into it. Then the work began.

At the western end of the line it was easy to get all the building materials needed except iron. On the mountains grew magnificent timber from which to make ties, trestles, bridges, and huts for the workmen. An abundance of stone was at hand for ballast and bridgeheads. But machinery and rails had to be brought thousands of miles over the sea. Labor, too, was scarce. Not much progress was made until Chinese coolies were imported by the thousand.

In some respects the difficulties were even greater at the eastern end of the line. When work was begun at Council Bluffs in November, 1865, no railway line had been completed across Iowa. Hence, for two years building material, workmen, and equipment had to be brought up the Missouri River by steamer or across the Iowa plains by prairie schooner. No trees suitable for ties, bridges, and culverts grew in the neighborhood. No stone was available for roadbed. Water

was scarce. Indian tribes were dangerous. These difficulties were offset in part by the fact that it was easy to build a roadbed on the flat, smooth plain.

In those days immense herds of buffalo roamed the plains. General Sheridan says that in 1868 he rode mile after mile for three days through a single herd. In 1869, a train was stopped for eight hours by buffaloes crossing the track. Such a quantity of game helped greatly in supplying the railway employees with fresh meat.

For years the Indians had watched restlessly the destruction of their game and the invasion of their territory by the whites. Their hostility showed itself in raids on the immigrants to Oregon and California. After 1861 prairie schooners, stage coaches, and pony express riders became more and more the objects of their enmity. On one occasion every station on the overland route for a distance of almost 200 miles was destroyed in a single night.

The Indians saw that they would have to give up their tribal life when the railroads were able to bring the white man across the plains and mountains. All their hate and fury were spent in a desperate effort to defeat or delay the project. They made the most extensive attacks the plains had ever known; they shot laborers at their work; burned bridges; destroyed track.

Many of the employees of the railroad had served as soldiers during the Civil War and were usually capable of defending themselves. Like the minutemen of the Revolution, they were ready to drop spade or shovel at a moment's notice and pick up a rifle. On one occasion, after the Indians had captured a freight train and its crew, the men formed in military order under the command of General Dodge, the chief engineer, and in the face of a destructive fire from the Indians recaptured the train.

Because of these difficulties the construction of the railroad was slow; at the end of one year the Union Pacific, the eastern company, had laid but 40 miles of track. After five

years' work the Central Pacific, the California company, had completed only 136 miles.

But in 1867 the greatest road-building race on record began. Each company, eager to secure the bounty of from $64,000 to $96,000 per mile offered by Congress for construction in the mountainous sections, exerted itself to the utmost. In 1868 the Central Pacific built 363 miles of roadbed; the Union Pacific, 425 miles. At the beginning, construction had been considered rapid at 1 mile per day. It now rose to 10 miles. All world records were broken, and the next spring the road was finished.

When the roads were almost completed, a curious difficulty arose. Owing to the failure of Congress to say where the roads should meet, and because there were large sums to be secured for each mile built, the rival companies showed no inclination to make their lines converge. As a result, their grading squads began to overlap one another. This disgraceful state of affairs led Congress to interfere. By a compromise the rivals agreed to meet at Promontory Point, near Ogden, Utah. Meantime the Central Pacific had built 80 miles of grade east of the meeting point, while the Union Pacific had spent a million dollars on equally useless grading west of Ogden.

The completion of the road was made the occasion for a national celebration. On the 9th of May the Union Pacific force worked all night completing its last section. On the morning of the 10th there remained but 100 feet between the ends of the two lines. Six hundred people gathered to witness the concluding ceremony. In the little company were the leaders of the two railways, a delegation of Mormons from Salt Lake City, a squad of soldiers, a military band, and a motley crowd of Mexicans, Indians, negroes, half-breeds, Chinese coolies, and Irish laborers.

The two bands of workmen (Chinese at the west and Irish at the east) set the last ties and laid the last rails. The last tie was of polished California laurel. Nevada and Idaho each

presented a spike of silver; from Arizona came a spike of gold, silver, and iron; from California, a spike of gold. A silver sledge hammer had been prepared for the occasion.

Telegraphic wires were attached to the rails in such a way that the blows of the sledge hammer could be reported instantly from sea to sea. The enthusiastic cheers which arose from the little company in the desert as the gold spike was driven in by the silver hammer were echoed from coast to coast. Says one writer:

> Chicago had a procession 7 miles long; New York hung out bunting, fired a hundred guns, and held thanksgiving services in Trinity; Philadelphia rang the old Liberty Bell; Buffalo sang the "Star Spangled Banner"; and many towns burnt powder in honor of the completion of a work which gives us a road to the Indies, a means of making the United States a halfway house between the East and West, and last, but not least, a new guaranty of the perpetuity of the Union as it is.

With the exception of the Panama Canal, the Pacific Railway is the greatest engineering feat ever undertaken in America, perhaps in the world. Eighteen hundred miles of track were laid through an unsettled wilderness, much of which was infested with dangerous Indians. Mountains had to be tunneled, rivers and canyons bridged, alkali deserts and arid plains crossed. In money and land the railway is estimated to have cost the Government $830,000,000.

In general, the railroad followed the old Oregon trail to the north branch of the Platte River, then went directly west to California. Originally a large part of this trail was marked out along waterways by buffalo and other wild animals. The Indian followed the buffalo; the trader followed the Indian; the settler and gold seeker followed the trader; and last of all came the railway — buffalo, Indian, trader, miner, surveyor, engineer, farmer. Such is the story of civilization in the far West.

Men seem to have thought that the value of the Pacific

Railway would consist merely in reaching the coast or opening up oriental trade. While the road accomplished both these purposes, its chief value lay in the fact that it opened up the interior of the continent to settlement.

So long as men have no road by which to market bulky commodities, such as the products of a farm, remote localities are closed to settlement. Only the attraction of gold, silver, or valuable diamond fields can overcome this obstacle. Of what use to raise quantities of crops or cattle or sheep if one can not sell the surplus? And how can one sell unless one can get to the market?

When a railway is built or a canal dug, the way to the market is open. After railroads have been built, wheat and wool can be sold in London or New York; harvesting machinery and pianos can be purchased in Chicago or Paris. Through the building of railroads land is occupied; ranches are established; farms are cultivated; cities come into existence.

And so it was with the Pacific Railway. As the lines were built from the East and from the West, a wider and wider ribbon of settlement grew up along their borders. Near the two approaching ends there were always towns, which owed their existence to the presence of the railway employees. Like mushrooms, they grew up in a night; and for the most part they disappeared almost as soon, advancing into the interior with the gradual extension of the line. Wild, rough places they were, frequented by railway hands, gamblers, cowboys, Indians, and desperadoes. A few such towns became permanent cities and developed into prosperous, orderly communities.

When the railway was finished, branch lines were soon built to outlying points. Ranches and settlements multiplied. At connecting points the need of transshipment brought larger towns into existence. In such manner developed cities like Cheyenne.

With the disappearance of the buffalo, cattle ranches made their appearance, extending their operations farther and farther

as it became possible to ship cattle over the railway to eastern markets. Thus the far West was opened up.

CLASS ACTIVITIES

1. Name five of the greatest difficulties of early railroad building in the order of their importance. Which company seemed to face the greater difficulties?
2. Trace the Union Pacific Railway on a map of the United States. Include State lines and large cities through which the road passed.
3. What chief advantages were urged for a transcontinental road? Name all the transcontinental roads at present in the United States. Name all in North America.
4. How large was the land bonus finally given to the Union Pacific?
5. Explain the advantages your city enjoys because of railway facilities.
6. How does the story "Turkey Red," p. 40, show the importance of a railroad?
7. *Class conversation:* Each tell about one example of engineering skill in railroad building.
8. *Volunteer projects:*
   a. Make a collection of pictures to show where and how railroads are built.
   b. Report about some other enterprise of the federal government like the Roosevelt Dam, the Panama Canal, the Cumberland Road.

ADDITIONAL READINGS. — 1. "Over the Rockies by Electricity," J. Anderson, in *St. Nicholas*, 45 : 654–656. 2. "What Every Boy Should Know About a Locomotive," F. B. Masters, in *St. Nicholas*, 42 : 531–541. 3. "Road Building," A. C. Flagg, in *Century Magazine*, 57 : 139–149. 4. "A New Era in Transportation," S. W. Allender, in *Scientific American*, 127 : 94–95. 5. "007," R. Kipling, in *The Day's Work*. 6. "From London to Australia by Aeroplane," R. Smith, in *National Geographic Magazine*, 40 : 229–239. 7. "America's Billion Dollar Industry," C. P. Burton, in *Harper's Magazine*, 145 : 24–34. 8. "Our Greatest Travelers," W. W. Cope, in *National Geographic Magazine*, 20 : 346–365. 9. "Good Roads and Civilization," *Compton's Pictured Encyclopedia*, 7 : 3023–3026. 10. "Icarus and Dædalus," Josephine P. Peabody, in *Children's Literature*, 336–337. 11. "Darius Green and His Flying Machine," J. T. Trobridge, *ibid.*, 432–436. 12. "All in a Day's Run," W. H. Foster, in *Scribner's Magazine*, 47 : 159–166.

4. THE HOME EXPRESS

JOHN GODFREY SAXE

Mr. Saxe describes a home-coming suburban train in Chicago, running out along the shore of Lake Michigan. What evidences can you find of the happiness of going home from work?

Bless me! this is pleasant,
Riding on a rail!

When the city's rush is over, and the monthly ticket shown,
And the platform's crowd has scattered like the leaves in autumn blown,
Then the engine feels the throttle, as the racer feels the whip,
And sends its drivers whirling for its little homeward trip.

Oh, the home train and its quiver, and its shoot along the lake,
And its gladness that the day is nearly done;
And the tumbling of the wave crests as they flash and swiftly break
In the last, low, level shining of the sun!

The clean-cut man of business eyes his fresh-bought paper close,
Culling out the world's wide doings from the padded news verbose;
And the bargain hunter, happy sits, ensconced amid her gains,
Complacent o'er the patent fact of her superior brains.

The trainman punches tickets with his swift and easy air,
Like the man that knows his business of getting every fare;
And he calls the Hyde Park station in the strong familiar ring
As he inward thrusts his body through the car door's sudden swing.

Meanwhile the conversation of the women from the clubs
Increases with the train speed and the whirling of the hubs;

And the latest sociology or Kipling's virile verse
Of city art and garbage their gossip intersperse.

And the judge of human nature, as he notes their faces fair,
Knows these are they whose strenuous wills can strongly do and dare;
And his inner eye sees visions of immortal Art's wide sway
And clear-eyed Science gazing on a fairer, sweeter day.

So the city's strong-faced thousands spin adown the steel-set bed,
With the two red signals rearward and the yellow on ahead;
Till the engine feels the throttle 'neath the station's glittering light,
And gladdens waiting home-hearts at the gathering of the night.

Oh, the home train and its quiver, and its shoot along the lake,
And its gladness that the day is fairly done;
And the tumbling of the wave crests as they flash and swiftly break
In the twilight and the moonlight just begun!

CLASS ACTIVITIES

1. What home-goers are mentioned? What occupations do they represent?
2. What is the joke in the two short lines at the opening of the poem?
3. Read lines which bring out the joy of home-going.
4. Find new words for: ensconced, complacent, sociology, culling out, virile, intersperse, strenuous.
5. *Volunteer work.* If you live in a city that has suburban service, write a little poem about people you see on the trains or street-cars.

CLASS-LIBRARY READINGS

ANNIHILATING DISTANCE BY LAND

1. "The Balloonist," *Careers of Danger and Daring*, 87–129.
2. "The Locomotive Engineer," *ibid.*, 377–419.
3. "Blow the Curve," A. M. Kerr, in *Stories of the Day's Work*, 156–166.
4. "The Freight Train," C. Warman, in *A Vocational Reader*, 161–162.
5. "When Young Wits Clashed," F. M. Holmes, *ibid.*, 162–169.
6. "Riders on the Wind," *Book of Knowledge*, 1: 167–184.
7. "The Wonder of a Train," *ibid.*, 2: 409–420.
8. "The Soaring Motor Car of the Air," *Compton's Pictured Encyclopedia*, 1: 59–68.
9. "Flying Gas Bags," *ibid.*, 1: 310–320.
10. "Travel by Land, Sea, and Air," *ibid.*, 7: 3524–3527.
11. "Cape-to-Cairo Railroad," *World Book*, 2: 1169–1171.

D. CROSSING GREAT WATERS

1. THE SEA

BRYAN WALLER PROCTOR

"We all are poets when we read a poem well." Keep your books closed and listen intently while a good oral reader in your class reads this poem aloud. Notice the *swing*, the *life*, and the *rhythm*, the *lilt* of the lines. Most of them have the "beat" or the "throb" of poetry upon the second syllable of each "foot."

$$\breve{\text{The}}\ \overline{\acute{\text{sea}}}\,! \mid \breve{\text{the}}\ \overline{\acute{\text{sea}}}\,! \mid \breve{\text{the}}\ \overline{\acute{\text{op}}} \mid \breve{\text{en}}\ \overline{\acute{\text{sea}}}\,!$$

As you listen, catch one or two lines which seem to you best to express the movement of the sea.

The sea! the sea! the open sea!
The blue, the fresh, the ever free!
Without a mark, without a bound,
It runneth the earth's wide regions round;
It plays with the clouds, it mocks the skies;
Or like a cradled creature lies.

I'm on the sea! I'm on the sea!
I am where I would ever be;
With the blue above, and the blue below,
And silence wheresoe'er I go;
If a storm should come and awake the deep,
What matter? *I* shall ride and sleep.

I love, oh *how* I love to ride
On the fierce, foaming, bursting tide,
When every mad wave drowns the moon,
Or whistles aloft his tempest tune,
And tells how goeth the world below,
And why the southwest blasts do blow.

I never was on the dull, tame shore,
But I loved the great sea more and more,
And backward flew to her billowy breast,
Like a bird that seeketh its mother's nest;
And a mother she *was*, and *is*, to me;
For I was born on the open sea!

The waves were white, and red the morn,
In the noisy hour when I was born;
And the whale it whistled, the porpoise rolled,
And the dolphins bared their backs of gold;
And never was heard such an outcry wild
As welcomed to life the ocean-child!

I've lived since then in calm and strife,
Full fifty summers a sailor's life,
With wealth to spend and a power to range,
But never have sought nor sighed for change;
And Death, whenever he comes to me,
Shall come on the wild, unbounded sea!

CLASS ACTIVITIES

1. Select lines which emphasize the power of the sea.
2. Try reading this poem in a dull, lifeless voice as if you were talking about death! How would you read it if it were funny? How should you read it?
3. What parts of this poem may be the story of Proctor's own life? Explain your choices. About how old was the sailor who is supposed to be talking? Read the lines which give you evidence.

4. Name the different pictures of the ocean included in the poem. Read lines which picture the ocean as having "moods" as people have "moods."
5. Some of the lines do not have the regular beat. For example, the fifth line in the first stanza runs as follows:

$$\breve{\text{I}}\text{t } \underset{/}{\text{plays}} \mid \text{with } \breve{\text{t}}\text{he } \underset{/}{\text{clouds}}; \mid \text{it } \underset{/}{\text{mocks}} \mid \breve{\text{t}}\text{he } \underset{/}{\text{skies}};$$

The fifth line in the second stanza is this:

$$\breve{\text{I}}\text{f } \breve{\text{a}} \text{ } \underset{/}{\text{storm}} \mid \text{sh}\breve{\text{o}}\text{uld } \underset{/}{\text{come}} \mid \text{a}\breve{\text{n}}\text{d } \breve{\text{a}}\underset{/}{\text{wake}} \mid \hat{\text{t}}\text{he } \underset{/}{\text{deep}}.$$

Find some other lines in which the "accent" or "metre" is not regular. The swing and movement of the lines are called rhythm.

6. *Volunteer work:* Three volunteers practise reading aloud the poem given below.
7. *Topics to investigate:* Use your encyclopedias; find your information now and prepare to report during the General Review, p. 321.
   a. Safety on the sea now as compared with fifty years ago.
   b. Services to shipping of the United States Weather Bureau.
   c. The use of sailing-vessels to-day.
   d. The routes of the ocean, Atlantic.
   e. Conveniences of the modern ocean liner.

2. SEA-FEVER

JOHN MASEFIELD

As you read, think of the tossing of the waves, and the "roll" of the ocean, as the waves approach the shore. When you read the verses aloud, try to suggest the movement of the waves.

I must down to the seas again, to the lonely sea and the sky,
And all I ask is a tall ship and a star to steer her by;
And the wheel's kick and the wind's song and the white sails
    shaking,
And a gray mist on the sea's face, and a gray dawn breaking.

I must down to the seas again, for the call of the running tide
Is a wild call and a clear call that may not be denied;
And all I ask is a windy day with the white clouds flying,
And the flung spray and blown spume, and sea-gulls crying.

I must down to the seas again, to the vagrant, gypsy life;
To the gull's way and the whale's way where the wind's like a whetted knife.
And all I ask is a merry yarn from a laughing fellow rover
And a quiet sleep and a sweet dream when the long trick's over.

CLASS ACTIVITIES

Here is a list of sea poems. Read as many as you can find. Select three passages from the poems you read which give you good pictures of the sea. In each poem you read, determine whether the sea is loved or feared. Report during General Review, p. 321.

1. William Wordsworth, "With Ships the Sea was Sprinkled."
2. George G. Byron, "The Sea," in *Childe Harold's Pilgrimage.*
3. Allen Allingham, "A Wet Sheet and a Flowing Sea."
4. Eppes Sargent, "A Life on the Ocean Wave."
5. Robert Bridges, "A Passer-By."
6. Robert L. Stevenson, "Christmas at Sea."
7. John J. Bell, "On the Quay."
8. Bayard Taylor, "Storm Song."
9. Robert Southey, "The Inchcape Rock."
10. Charles Kingsley, "The Sands o' Dee."
11. Charles Kingsley, "The Three Fishers."
12. William Allington, "Homeward Bound."
13. Rudyard Kipling, "The Liner She's a Lady.'

3. HOW PHILEAS FOGG WON HIS WAGER

JULES VERNE

Mr. Phileas Fogg, of London, England, had made a wager with four of his friends that he could make a tour of the world in eighty days. Accompanied by his servant, Passepartout, he left London at eight forty-five o'clock on the evening of October 2d, promising to return within eighty days or forfeit to his friends the sum of twenty thousand pounds. By way of Bombay, Calcutta, Hongkong, and San Francisco, after many delays he reached New York only to find that the last steamer by which he could reach London by December 21st, the last of the eighty days, had sailed shortly before his arrival.

At a quarter-past eleven in the evening of the 11th of December, the train stopped in the New York station before

the very pier of the Cunard line, but the *China*, for Liverpool, had started three-quarters of an hour before! The *China* seemed to have carried off Phileas Fogg's last hope.

Passepartout was crushed; it overwhelmed him to lose the boat by three-quarters of an hour, but Mr. Fogg on leaving the Cunard pier, only said: "We will consult about what is best to-morrow. Come."

The party crossed the Hudson in the Jersey City ferry-boat, and drove in a carriage to the St. Nicholas Hotel, on Broadway. Rooms were engaged, and the night passed, briefly to Phileas Fogg, who slept profoundly, but very long to the others, whose agitation did not permit them to rest.

The next day was December 12. From seven in the morning of the 12th, to a quarter before nine in the evening of the 21st, there were nine days, thirteen hours and forty-five minutes. If Phileas Fogg had left in the *China*, one of the fastest steamers on the Atlantic, he would have reached Liverpool, and then London, within the period agreed upon.

Mr. Fogg left the hotel alone, after giving Passepartout instructions to await his return. He went to the banks of the Hudson, and looked about among the vessels moored or anchored in the river, for any that were about to depart. But they were mostly sailing-vessels, of which, of course, Phileas Fogg could make no use.

He seemed about to give up all hope when he spied, anchored at the Battery, a cable's length off at most, a trading vessel, with a screw, well-shaped, whose funnel, puffing a cloud of smoke, indicated that she was getting ready for departure.

Phileas Fogg hailed a boat, got into it, and soon found himself on board the *Henrietta*, iron-hulled, wood-built above. He ascended to the deck, and asked for the captain, who forthwith presented himself. He was a man of fifty, a sort of sea-wolf, with big eyes, a complexion of oxidized copper, red hair and thick neck, and a growling voice.

"The captain!" asked Mr. Fogg.

"I am the captain."

"I am Phileas Fogg, of London."

"And I am Andrew Speedy, of Cardiff."

"You are going to put to sea?"

"In an hour."

"You are bound for ——"

"Bordeaux."

"And your cargo?"

"No freight. Going in ballast."

"Have you any passengers?"

"No passengers. Never have passengers. Too much in the way."

"Is your vessel a swift one?"

"Between eleven and twelve knots. The *Henrietta*, well known."

"Will you carry me and three other persons to Liverpool?"

"To Liverpool? Why not to China?"

"I said Liverpool."

"No!"

"No?"

"No. I am setting out for Bordeaux, and shall go to Bordeaux."

"Money is no object?"

"None."

The captain spoke in a tone which did not admit of a reply.

"But the owners of the *Henrietta* —" resumed Phileas Fogg.

"The owners are myself," replied the captain. "The vessel belongs to me."

"I will freight it for you."

"No."

"I will buy it of you."

"No."

Phileas Fogg did not betray the least disappointment; but the situation was grave. Up to this time money had smoothed away every obstacle. Now money failed.

Still, some means must be found to cross the Atlantic on a boat, if not by balloon — which would have been venturesome, besides not being capable of being put in practice. It seemed that Phileas Fogg had an idea, for he said to the captain: "Well, will you carry me to Bordeaux?"

"No, not if you paid me two hundred dollars."

"I offer you two thousand."

"Apiece?"

"Apiece."

"And there are four of you?"

"Four."

Captain Speedy began to scratch his head. There were eight thousand dollars to gain, without changing his route; for which it was well worth conquering the repugnance he had for all kinds of passengers. Besides, passengers at two thousand dollars are no longer passengers, but valuable merchandise. "I start at nine o'clock," said Captain Speedy simply. "Are you and your party ready?"

"We will be on board at nine o'clock," replied, no less simply, Mr. Fogg.

At noon the next day, a man mounted the bridge to ascertain the vessel's position. It might be thought that this was Captain Speedy. Not the least in the world. It was Phileas Fogg, Esquire. As for Captain Speedy, he was shut up in his cabin under lock and key, and was uttering loud cries, which signified an anger at once pardonable and excessive.

What had happened was very simple. Phileas Fogg wished to go to Liverpool, but the captain would not carry him there. Then Phileas Fogg had taken passage for Bordeaux, and, during the thirty hours he had been on board, had so shrewdly managed with his bank-notes that the sailors and stokers, who were not on the best terms with the captain, went over to him in a body. This was why Phileas Fogg was in command instead of Captain Speedy; why the captain was a prisoner in his cabin; and why, in short, the *Henrietta* was

directing her course toward Liverpool. It was very clear, to see Mr. Fogg manage the craft, that he had been a sailor.

How the adventure ended will be seen anon. Passepartout thought Mr. Fogg's maneuver simply glorious. The captain had said "between eleven and twelve knots," and the *Henrietta* confirmed his prediction. The *Henrietta* plowed across the waves like a real transatlantic steamer.

Passepartout was delighted. His master's last exploit, the consequences of which he ignored, enchanted him. Never had the crew seen so jolly and dextrous a fellow. He formed warm friendships with the sailors, and amazed them with his acrobatic feats. He thought they managed the vessel like gentlemen, and that the stokers fired up like heroes. His good-humor infected every one. He had forgotten the past, its vexations and delays. He thought only of the end, so nearly accomplished; and sometimes he boiled over with impatience as if heated by the furnaces of the *Henrietta*.

As for Captain Speedy, he continued to howl and growl in his cabin; and Passepartout, whose duty it was to carry the captain his meals, courageous as he was, took the greatest precautions. Mr. Fogg did not seem even to know that there was a captain on board.

On the 13th they passed the edge of the Banks of Newfoundland, a dangerous locality; during the winter, especially, there are frequent fogs and heavy gales of wind. Ever since the evening before the barometer, suddenly falling, had indicated an approaching change in the atmosphere; and during the night the temperature varied, the cold became sharper, and the wind veered to the southeast.

This was a misfortune. Mr. Fogg furled his sails and increased the force of the steam; but the vessel's speed slackened, owing to the state of the sea, the long waves of which broke against the stern. She pitched violently, and this retarded her progress. The breeze little by little swelled into a tempest, and it was to be feared that the *Henrietta* might not be able to maintain herself upright on the waves.

Passepartout's visage darkened with the skies, and for two days the poor fellow experienced constant fright. But Phileas Fogg was a bold mariner, and knew how to maintain headway against the sea; and he kept on his course, without even decreasing his steam. The *Henrietta*, when she could not rise upon the waves, crossed them, swamping her deck, but passing safely. Sometimes the screw rose out of the water, beating its protruding end, when a mountain of water raised the stern above the waves; but the craft always kept straight ahead.

December 16th was the seventy-fifth day since Phileas Fogg's departure from London, and the *Henrietta* had not yet been seriously delayed. Half of the voyage was almost accomplished, and the worst localities had been passed. In summer, success would have been well-nigh certain. In winter, they were at the mercy of the bad season. Passepartout said nothing; but he cherished hope in secret, and comforted himself with the reflection that, if the wind failed them, they might still count on the steam.

On this day the engineer came on deck, went up to Mr. Fogg, and began to speak earnestly with him. "You are certain of what you tell me?" asked Fogg.

"Certain, sir," replied the engineer. "You must remember that, since we started, we have kept up hot fires in all our furnaces, and although we had coal enough to go on short steam from New York to Bordeaux, we haven't enough to go with all steam from New York to Liverpool."

"I will consider," replied Mr. Fogg.

Passepartout understood it all; he was seized with mortal anxiety. The coal was giving out! "Ah, if my master can get over that," muttered he, "he'll be a famous man!"

And now what course would Phileas Fogg adopt? It was difficult to imagine. Nevertheless he seemed to have decided upon one, for that evening he sent for the engineer, and said to him: "Feed all the fires until the coal is exhausted."

A few moments after, the funnel of the *Henrietta* vomited

forth torrents of smoke. The vessel continued to proceed with all steam on; but on the 18th, the engineer, as he had predicted, announced that the coal would give out in the course of the day.

"Do not let the fires go down," replied Mr. Fogg. "Keep them up to the last. Let the valves be filled."

Toward noon Phileas Fogg, having ascertained their position, called Passepartout, and ordered him to go for Captain Speedy. It was as if the honest fellow had been commanded to unchain a tiger. He went, saying to himself, "He will be like a madman!"

In a few moments a bomb appeared on deck. The bomb was Captain Speedy. It was clear that he was on the point of bursting. "Where are we?" were the first words his anger permitted him to utter.

"Where are we?" he repeated with purple face.

"Seven hundred and seventy miles from Liverpool," replied Mr. Fogg, with imperturbable calmness.

"Pirate!" cried Captain Speedy.

"I have sent for you, sir ——"

"Picaroon!"

"Sir," continued Mr. Fogg, "to ask you to sell me your vessel."

"No! no!"

"But I shall be obliged to burn her."

"Burn the *Henrietta!*"

"Yes; at least the upper part of her. The coal has given out."

"Burn my vessel!" cried Captain Speedy, who could scarcely pronounce the words. "A vessel worth fifty thousand dollars!"

"Here are sixty thousand," replied Phileas Fogg, handing the captain a roll of bank-bills. This had a prodigious effect on Andrew Speedy. The captain forgot in an instant his anger, his imprisonment, and all his grudges against his passenger. The *Henrietta* was twenty years old; it was a great

bargain. The bomb would not go off after all. Mr. Fogg had taken away the match.

"And I shall still have the iron hull," said the captain in a softer tone.

"The iron hull and the engine. Is it agreed?"

"Agreed." And Andrew Speedy, seizing the bank-notes, counted them, and put them in his pocket.

When Andrew Speedy had pocketed the money, Mr. Fogg said to him, "Don't let this astonish you, sir. You must know that I shall lose twenty thousand pounds, unless I arrive in London by a quarter before nine on the evening of the 21st of December. I missed the steamer at New York, and as you refused to take me to Liverpool ——"

"And I did well!" cried Andrew Speedy; "for I have gained at least forty thousand dollars by it!" He added, more sedately, "Do you know one thing, Captain ——"

"Fogg."

"Captain Fogg, you've got something of the Yankee about you." And, having paid his passenger what he considered a high compliment, he was going away, when Mr. Fogg said, "The vessel now belongs to me?"

"Certainly, from the keel to the truck of the masts — all the wood, that is."

"Very well. Have the interior seats, bunks, and frames pulled down, and burn them."

It was necessary to have wood to keep the steam up to the adequate pressure, and on that day the poop, cabins, bunks, and the spare deck were sacrificed. On the next day, December 19th, the masts, rafts, and spars were burned; the crew worked lustily, keeping up the fires. Passepartout, hewed, cut, and sawed away with all his might. There was a perfect rage for destruction. The railings, fittings, the greater part of the deck, and top sides disappeared on the 20th, and the *Henrietta* was now only a flat hulk. But on this day they sighted the Irish coast and Fastnet Light. By ten in the evening they were passing Queenstown. Phileas Fogg had

only twenty-four hours more in which to get to London; that length of time was necessary to reach Liverpool, with all steam on. And the steam was about to give out altogether!

"Sir," said Captain Speedy, who was now deeply interested in Mr. Fogg's project, "I really pity you. Everything is against you. We are only opposite Queenstown."

"Ah," said Mr. Fogg, "is that place where we see the lights Queenstown?"

"Yes."

"Can we enter the harbor?"

"Not under three hours. Only at high tide."

"Stay," replied Mr. Fogg, calmly, without betraying in his features that by a supreme inspiration he was about to attempt once more to conquer ill-fortune.

The *Henrietta* entered Queenstown harbor at one o'clock in the morning, it then being high tide; and Phileas Fogg, after being grasped heartily by the hand by Captain Speedy, left that gentleman on the leveled hulk of his craft which was still worth half what he had sold it for.

The party went on shore at once. They all got upon the train, which was just ready to start, at half-past one; at dawn of day they were in Dublin; and they lost no time in embarking on a steamer which, disdaining to rise upon the waves, invariably cut through them.

Phileas Fogg at last disembarked on the Liverpool quay, at twenty minutes before twelve, December 21. He was only six hours distant from London.

Mr. Fogg and Passepartout left the Custom House without delay, got into a cab, and in a few moments descended at the station. Phileas Fogg asked if there was an express train about to leave for London. The express train had left thirty-five minutes before. Mr. Fogg then ordered a special train. There were several rapid locomotives on hand; but the railway arrangements did not permit the special train to leave until three o'clock. At that hour Phileas Fogg, having stim-

ulated the engineer by the offer of a generous reward, at last set out toward London with his faithful servant.

It was necessary to make the journey in five hours and a half; and this would have been easy on a clear road throughout. But there were forced delays, and when Mr. Fogg stepped from the train at the terminus, the hands of the clocks in London showed it was ten minutes before nine.

Having made the tour of the world, he was behindhand five minutes. He had lost.

Mr. Fogg's five friends of the Reform Club passed the three days preceding December 21 in a state of feverish suspense. Would Phileas Fogg reappear before their eyes? Where was he at this moment? December 17 was the seventy-sixth since Phileas Fogg's departure, and no news of him had been received. Was he dead? Had he abandoned the effort, or was he continuing his journey along the route agreed upon? And would he appear on Saturday, December 21, at a quarter before nine in the evening on the threshold of the Reform Club saloon?

A great crowd was collected in Pall Mall and the neighboring streets on Saturday evening. Circulation was impeded, and everywhere disputes, discussions, and financial transactions were going on. The police had great difficulty in keeping back the crowd, and as the hour when Phileas Fogg was due approached, the excitement rose to its highest pitch.

The five antagonists of Phileas Fogg had met in the great dining hall of the club. John Sullivan and Samuel Fallentin, the bankers, Andrew Stuart, the engineer, Gauthier Ralph, the director of the Bank of England, and Thomas Flanagan, one and all waited anxiously.

When the clock indicated twenty minutes past eight, Andrew Stuart got up, saying, "Gentlemen, in twenty minutes the time agreed upon between Mr. Fogg and ourselves will have expired."

"What time did the last train arrive from Liverpool?" asked Thomas Flanagan.

"At twenty-three minutes past seven," replied Gauthier Ralph; "and the next does not arrive till ten minutes after twelve."

"Well, gentlemen," resumed Andrew Stuart, "if Phileas Fogg had come in the 7.23 train, he would have got here by this time. We can therefore regard the wager as won."

"Wait; don't let us be too hasty," replied Samuel Fallentin. "You know that Mr. Fogg is very eccentric. His punctuality is well-known; he never arrives too soon, or too late; and I should not be surprised if he appeared before us at the last minute."

"Why," said Andrew Stuart, nervously, "if I should see him, I should not believe it was he."

"The fact is," resumed Thomas Flanagan, "Mr. Fogg's project was absurdly foolish. Whatever his punctuality, he could not prevent the delays which were certain to occur; and a delay of only two or three days would be fatal to his tour."

"Observe, too," added John Sullivan, "that we have received no intelligence from him, though there are telegraphic lines all along his route."

"He has lost, gentleman," said Andrew Stuart, "he has a hundred times lost! You know, besides, that the *China* — the only steamer he could have taken from New York to get here in time — arrived yesterday. I have seen a list of the passengers, and the name of Phileas Fogg is not among them. Even if we admit that fortune has favored him he can scarcely have reached America. I think he will be at least twenty days behindhand."

"It is clear," replied Gauthier Ralph; "and we have nothing to do but to present Mr. Fogg's check at Barings' to-morrow."

The clock indicated eighteen minutes to nine.

Certainly, however secure they felt, minutes had never seemed so long to them!

"Seventeen minutes to nine," said Thomas Flanagan.

Then there was a moment of silence. The great saloon was perfectly quiet; but the murmurs of the crowd outside were heard, with now and then a shrill cry. The pendulum beat the seconds, which each player eagerly counted, as he listened, with mathematical regularity.

"Sixteen minutes to nine!" said John Sullivan, in a voice which betrayed his emotion.

One minute more, and the wager would be won.

Andrew Stuart and his partners counted the seconds.

At the fortieth second, nothing. At the fiftieth, still nothing. At the fifty-fifth, a loud cry was heard in the street, followed by applause, hurrahs, and some fierce growls.

The players rose from their seats.

At the fifty-seventh second the door of the saloon opened; and the pendulum had not beat the sixtieth second when Phileas Fogg appeared, followed by an excited crowd who had forced their way through the club doors, and in his calm voice said, "Here I am, gentlemen!"

Yes; Phileas Fogg in person.

At five minutes past eight in the evening — about three and twenty hours after the arrival of the travelers in London — Passepartout had been sent by his master to engage the services of the Reverend Samuel Wilson in a certain marriage ceremony, which was to take place the next day.

Passepartout went on his errand enchanted. He soon reached the clergyman's house, but found him not at home. Passepartout waited a good twenty minutes, and when he left the reverend gentleman, it was thirty-five minutes past eight. But in what a state he was! With his hair in disorder, and without his hat, he ran along the street as never man was seen to run before, overturning passers-by, rushing over the sidewalk like a waterspout. In three minutes he was in Saville Row again and staggered breathlessly into Mr. Fogg's room.

He could not speak.

"What is the matter?" asked Mr. Fogg.

"My master!" gasped Passepartout — "marriage — impossible ——"

"Impossible?"

"Impossible — for to-morrow."

"Why so?"

"Because to-morrow — is Sunday!"

"Monday," replied Mr. Fogg.

"No — to-day — is Saturday."

"Saturday? Impossible!"

"Yes, yes, yes, yes!" cried Passepartout. "You have made a mistake of one day! We arrived twenty-four hours ahead of time; but there are only seven minutes left!"

Passepartout had seized his master by the collar, and was dragging him along with irresistible force.

Phileas Fogg, thus kidnapped, without having time to think, left his house, jumped into a cab, promised a hundred pounds to the cabman, and, having run over two dogs and overturned five carriages, reached the Reform Club.

The clock indicated a quarter before nine when he appeared.

Phileas Fogg had accomplished the journey round the world in eighty days!

How was it that a man so exact and fastidious could have made this error of a day? How came he to think that he had arrived in London on Saturday, the twenty-first day of December, when it was really Friday, the twentieth, the seventy-ninth day only from his departure?

The cause of the error is very simple.

Phileas Fogg had, without suspecting it, gained one day on his journey, and this merely because he had traveled constantly eastward; he would, on the contrary, have lost a day, had he gone in the opposite direction, that is, westward.

In journeying eastward he had gone toward the sun, and the days therefore diminished for him as many times four

minutes as he crossed degrees in this direction. There are three hundred and sixty degrees on the circumference of the earth; and these three hundred and sixty degrees, multiplied by four minutes, give precisely twenty-four hours — that is, the day unconsciously gained. In other words, while Phileas Fogg, going eastward, saw the sun pass the meridian eighty times his friends in London only saw it pass the meridian seventy-nine times. This is why they awaited him at the Reform Club on Saturday, and not Sunday, as Mr. Fogg thought.

And Passepartout's famous family watch, which had always kept London time, would have betrayed this fact, if it had marked the days as well as the hours and minutes!

Phileas Fogg, then, had won the twenty thousand pounds; but as he had spent nearly nineteen thousand on the way, the pecuniary gain was small. His object was, however, to be victorious, and not to win money.

CLASS ACTIVITIES

1. What, do you imagine, was the unusual appearance of Fogg? How would you draw him, if you could draw? How represent Passepartout? How Captain Speedy?
2. What makes you think that this is a purely imaginary story? Is there any event that could not have happened actually as told?
3. What is the difference, approximately, between $60,000 and £20,000?
4. *Volunteer work:*
   a. Read Jules Verne's *Twenty Thousand Leagues Under the Sea*, and tell the class how the author predicted the invention of submarines.
   b. Find how quickly a person can travel around the world to-day.

ADDITIONAL READINGS. — 1. "The Dream Ship; Halfway Around the World in a Forty-seven-Foot Life-boat," R. Stock, in *National Geographic Magazine*, 40: 1–52. 2. "Big Steamers," R. Kipling, in *The Day's Work*. 3. "The Ship that Found Herself," R. Kipling, in *The Day's Work*. 4. "Ships," *Compton's Pictured Encyclopedia*, 7: 3207–3220. 5. "Old-Fashioned Ship Travel," B. Franklin, in *Autobiography*, chap. 13.

4. THE GLORY OF SHIPS

HENRY VAN DYKE

The glory of ships is an old, old song, since the days when the sea-rovers ran,
In their open boats through the roaring surf, and the spread of the world began;
The glory of ships is a light on the sea, and a star in the story of man.

When Homer sang of the galleys of Greece that conquered the Trojan shore,
And Solomon lauded the barks of Tyre that brought great wealth to his door,
'Twas little they knew, those ancient men, what would come of the sail and the oar.

The Greek ships rescued the West from the East, when they harried the Persians home;
And the Roman ships were the wings of strength that bore up the empire, Rome;
And the ships of Spain found a wide new world, far over the fields of foam.

Then the tribes of courage at last saw clear that the ocean was not a bound,
But a broad highway, and a challenge to seek for treasure as yet unfound;
So the fearless ships fared forth to the search, in joy that the globe was round.

Their hulls were heightened, their sails spread out, they grew with the growth of their quest;
They opened the secret doors of the East, and the golden gates of the West;
And many a city of high renown was proud of a ship on its crest.

The fleets of England and Holland and France were at strife
with each other and Spain;
And battle and storm sent a myriad ships to sleep in the
depths of the main;
But the seafaring spirit could never be drowned, and it filled
up the fleets again.

They greatened and grew, with the aid of steam, to a won-
derful, vast array,
That carries the thoughts and the traffic of men into every
harbor and bay;
And now in the world-wide work of the ships 'tis England that
leads the way.

CLASS ACTIVITIES

1. Notice how much history is packed into this short poem. Explain how many centuries are included.
2. Look up in the encyclopedia one of the following and write a report to read to the class: (*a*) Norsemen or sea-rovers; (*b*) the Trojan War, especially to find pictures or references to "galleys"; (*c*) King Solomon or Tyre; (*d*) the Persian War, especially the place of ships; (*e*) galleys and galley-slaves; (*f*) the voyage of Columbus; (*g*) of Vasco da Gama; (*h*) the Spanish Armada.
3. *Class program of ship poems.* Find and read one to the class:
   a. "The Revenge," Alfred Tennyson.
   b. "Old Ironsides," Oliver Wendell Holmes.
   c. "D'Auber," Alfred Noyes.
   d. "Hervé Riel," Robert Browning.
   e. "The Fisherman," John G. Whittier.
   f. "The Coastwise Lights," Rudyard Kipling.

CLASS-LIBRARY READINGS

CROSSING GREAT WATERS

1. "The Pilot," in *Careers of Danger and Daring*, 150–172.
2. "The Story of the Submarine," in *Wonder Book of Knowledge.*
3. "Robert Fulton," in *Makers of Our History*, 112–122.
4. "Cyrus W. Field," *ibid.*, 278–290.

5. "The Boat," in *Stories of Useful Inventions*, 190–210.
6. "Columbus," J. Miller, in *Stories of the Day's Work*, 105–106.
7. "The Fisherman," J. G. Whittier, *ibid.*, 226–228.
8. "How Cyrus Laid the Cable," J. G. Saxe, in *A Vocational Reader*, 107–110.
9. "A Fisherman of Costla," J. B. Connolly, in *Joy in Work*, 3–31.
10. "From the Depths of Things," L. Perry, *ibid.*, 167–180.
11. "Conquerors of the Sea," *Book of Knowledge*, 8 : 2467–2476.
12. "The House Upon the Sea," *ibid.*, 1 : 73–76.
13. "The Wire That Runs Under the Sea," *ibid.*, 15 : 4551–4555.
14. "Round the World in Eighty Days," J. Verne, *ibid.*, 16 :4865–4875.
15. "Life of a Sailor at Sea," *ibid.*, 20 : 6233–6244.
16. "The Cables That Bind the World Together," *Compton's Pictured Encyclopedia*, 2 : 556–561.
17. "The Conquest of the Sea," *ibid.*, 8 : 3207–3220.
18. "The Submarine Cable," *World Book*, 2 : 1036–1038.

GENERAL REVIEW OF COMMUNICATING AND TRAVELLING

READING HABITS

(To be read and discussed by teacher and pupils together.)

On page 224 we saw that reading is a partnership of two people, the one who writes and the one who reads. When a story is read aloud to a group of listeners, the partnership includes at least three partners, and usually a larger number. Discuss the listener's share of the partnership. Notice the four different ways in which the reader has been asked to do his share of the active partnership:

a. The reader is asked to give examples and experiences of his own. P. 248 and p. 267. This is often called "reading between the lines."

b. The reader is asked to find some definite information of importance contained in the selection. On pp. 254, 285, and 291 are examples of that practice. At other times the reader is asked to find something that is not definitely stated in the selection. For example, on p. 263 you were asked to find places which made large "pictures" and to tell what you would put in those pictures. Once you were asked to find the author's *purpose* in writing, p. 282.

c. The reader is asked to recognize the framework of a selection; that is, to see how the parts fit together to form a whole. This problem is illustrated on p. 258. Look up these problems. Compare them with the discussion on p. 69.

d. A good reader needs to have a judgment of his own; he needs to determine values in what he reads; he needs to find mistakes and errors, as well as to find strong and reliable places in what he reads. On p. 285 you were asked to find a possible weak place in the story; on p. 282 you were asked to see whether the writer really accomplished his purpose.

We may then say that four duties of the reader as an active partner are:

a. To *give* something out of his own experience.
b. To *find* something of value that the writer has.
c. To *see* the plan and sequence of the writer's thought.
d. To *judge* the worth and value of the writer's ideas.

QUESTIONS AND PROBLEMS

1. Read again the titles of the selections in "Communicating and Travelling" on p. 245. As you read, make two lists. Place in the first list the titles of selections which tell of the past, with its inconveniences and dangers. Place in the second list the titles of selections that tell about the comfort and safety of life to-day. Then pick out four statements or ideas which will suitably fill out the main divisions of this outline:

FOUR ADVANTAGES OF COMMUNICATION AND TRAVEL WE ENJOY TO-DAY

I. .....
a. .....
b. .....
II. .....
a. .....
b. .....
III. .....
a. .....
b. .....
IV. .....
a. .....
b. .....

Fill in each of the subheads called (*a*) with an example of the disadvantages of older days, and each of the subheads (*b*) with a contrasting example of an advantage of to-day. For all the (*a*) and (*b*) points, give exact page references to the selections in this unit.

2. Round Table book reports. You have each been reading one or more books from the book list (p. 246) or other books of similar nature. Prepare for a class meeting in which each shall give an oral report of one book he has read, covering these points: (*a*) the title and author; (*b*) the general nature of the book—story, description, explanation; (*c*) the author's purpose; its value or lack of value; (*d*) one contribution the book makes about a safer, happier, or more convenient life.
3. Mental moving-pictures. Plan a series of mental moving-pictures, for example, "A Storm at Sea": (1) a crowded ship; (2) the approaching storm; (3) the captain's warning; (4) lowering the life-boats; (5) the rescuing ship. Write a list of the details that you would put in a chain formation in one of the scenes of your mental movie. Use one of these topics:
   a. A rural mail-carrier's runaway.
   b. An anxiously awaited letter.
   c. That radio of mine.
   d. President Harding's funeral train.
   e. Hiawatha's hunting.
   f. A first ride in an aeroplane.
   g. Fighting off the Indians.
   h. When the two railroads were joined at ——.
4. Making other classes help. Tell what you have learned from your other classes that has helped you in reading "Communicating and Travelling." Try to think of at least three contributions, one made by your science work, one by your history or civics work, and one by your arithmetic or mathematics work. Tell the class on the day assigned. If you prefer, you may tell of some help which the study of *Reading and Living* has given for one of your other courses.
5. Special reports. Let individuals give reports of their investigations and studies begun in accordance with the directions on pp. 272, 305, and 321.

ROUNDING OUT THE MEANING OF COMMUNICATING AND TRAVELLING

If several of these projects are carried out, the class may prepare an exhibit to be posted on the school bulletin-board or to be displayed in the school library.

1. Make a book of beautiful sea pictures or of beautiful sea descriptions, or of both.

2. Make a collection of memory gems, called "Lines Our Class Likes Best," from poems about ships and the sea. Each member of the class try to suggest at least one line for the collection.
3. Make a poster of mounted pictures upon one of these topics, or upon another topic suggested by them:
   a. Foreign travel.
   b. Travel in ye olden time.
   c. Queer ways of travelling.
4. Make a scrapbook of pictures and clippings about:
   a. Aircraft enterprises.
   b. The radio.
5. Keep a list in your notebook of:
   a. Poems you read this year.
   b. Books you read.
   c. Books you would like to read.

A volunteer may bring the individual lists together, arrange them neatly, and show them to the principal under the title: "What Our Class Have Been Reading."

TOPICS FOR COMPOSITION

1. Two values of good railway service to our city.
2. Why interest in bicycle riding has declined.
3. An interesting radio message I once heard.
4. The inconvenience of a badly addressed letter.
5. Speaking distinctly over the telephone.
6. How the telegraph multiplies man's voice.
7. How some animals communicate.
8. The importance of time in business.
9. An example of reckless driving.
10. An avoidable automobile accident.

QUESTIONS FOR DEBATE

1. *Resolved*, That the advantages of the automobile offset the dangers it causes.
2. *Resolved*, That a long walk to school is better than a short walk.
3. *Resolved*, That inventions are usually accidental.

UNIT FIVE

SAVING AND CONSERVING

WE AS A NATION NEED TO THINK OF PRESERVING AS WELL AS WE CAN ALL OF NATURE'S GIFTS.

[*See p.* 328]

SAVING AND CONSERVING

"A penny saved is a penny earned."

"A stitch in time saves nine."

"You never miss the water till the well runs dry."

"A small leak will sink a great ship."

THRIFT

When Esther asked the meaning of the word thrifty, her teacher replied: "It means being industrious in whatever you undertake, wasting neither time, money, nor materials. The really thrifty persons are those who waste nothing and spend wisely."

This is a larger and much better idea of saving than most people have. Saving money, proper so far as it goes, is only the beginning of thrift. In the readings which follow we shall see that Esther's teacher was right. Every one of us should think of saving time and strength and should be careful of the materials with which he works.

And we as a nation need to think of preserving as well as we can all of nature's gifts. Such bounties are given us to use wisely. Riches taken from our mines, from our forests, and from our farms can never be restored. Thoughtlessness and cruelty in destroying useful birds and useful animals may bring hardships upon us as a nation. Wastefulness leads to poverty; thrift leads to wealth.

V. SAVING AND CONSERVING

A. Living Within One's Means

		PAGE
1. Mr. Vinegar	*Old Fairy Tale*	332
2. Thrift	*Anonymous*	335
3. The Habit of Thrift	*Myron T. Herrick*	337
4. The Way to Wealth	*Benjamin Franklin*	340

B. Saving Health and Strength

1. The Vigor of Life	*Theodore Roosevelt*	346
2. A Would-Be Doctor	*Frank Parsons*	351
3. Franklin and Madam Gout	*Benjamin Franklin*	357
4. To Sleep	*William Wordsworth*	363

C. Protecting Useful Birds

1. Stupidity Street	*Ralph Hodgson*	365
2. Our Vanishing Birds	*Rudolf C. Cronau*	365
3. A Petition of the Birds	*George F. Hoar*	375

CHOOSE A BOOK

1. Clark, Graves Glenwood, *Tiny Toilers and Their Works.* Century.
   Stories of insects as farmers, paper-makers, home-keepers, cowherds, dressmakers, warriors, fishermen, weather prophets, jacks-of-all-trades, miners, factory workers.

2. Du Puy, William Atherton, *Uncle Sam, Wonder Worker.* Stokes.
   Story of the strange feats performed by our government in sowing forests, inventing new animals, growing pearls, destroying harmful animals, making new plants.

3. Du Chaillu, Paul B., *The World of the Great Forest.* Scribner.
   How animals, birds, reptiles, and insects think, talk, work, and live.

4. Dorrance, John Gordon, *Story of the Forest.* American.
   How trees live, grow, and die; how to know trees; how trees serve men; famous trees in history.

5. Eliot, George, *Silas Marner.*
   How a miser named Marner lost his money, but gained real riches when the little waif Eppie came to his home.

6. Fabre, Jean Henri, *Field, Forest, and Farm.* Century.
   How the earth yields its riches for the welfare of man; how men can help the earth and all its creatures to serve men better.

7. Hawkes, Clarence, *Tenants of the Trees.* L. C. Page & Co.
   How to win companionship with birds; the secrets of woodcraft for one who wants to be fair to birds and animals.

8. Keeler, Harriet L., *Our Native Trees and How to Identify Them.* Scribner.
   A tree lover tells how to know our native trees, enabling us to recognize our friends; more than 300 pictures.

9. Kipling, Rudyard, *The Boy Scout Book.* Abbott.
   An inspiring book by one who believes in boys and Boy Scouts.

10. Lord, Isabel Ely, *Getting Your Money's Worth.* Harcourt.
    Explains, for girls especially, how to select and how to buy; the advantages of a family budget; how to make it; how to effect savings and to use a bank.

11. Muir, John, *The Story of My Boyhood and Youth.* Houghton.
How America's greatest nature lover spent his boyhood in Scotland, and his youth in Wisconsin, learning to know wild animals and birds and flowers.

12. Pinchot, Gifford, *The Training of a Forester.* Lippincott.
A book by one who is distinguished for his knowledge of the forest and for his services to forest conservation.

13. Price, Overton Estfeldt, *The Land We Live In.* Small, Maynard.
Explains the use and the waste of America's forests, lands, waters, minerals, telling why and how they ought to be preserved.

14. Pritchard, Myron T., and Turkington, Grace A., *Stories of Thrift for Young Americans.* Scribner.
How to be poor; how to be rich; how to save; how to spend. What would you do if you had $100 to spend? Read what Ella, Phil, and Herbert thought they would do.

15. Rolt-Wheeler, Francis W., *Boy with the United States Foresters.* Lothrop.
Explains what forestry is and what the saving of timber means; many pictures by the Federal Forestry Service.

16. Seton, Ernest Thompson, *Rolf in the Woods.* Doubleday.
A Boy Scout's book of out-door adventures, founded on true stories from American frontier history.

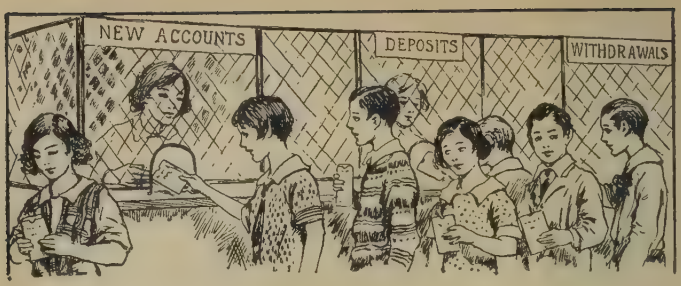
17. Sewell, Anna, *Black Beauty.* Dodge Publishing Co.
Black Beauty, a horse, tells the story of his early home, his kind masters, his adventures in the city, and his experiences with his mates, Ginger, Merrylegs, and Captain.

18. Sharp, Dallas Lore, *Roof and Meadow.* Houghton.
Stories of birds and woodchucks, raccoons, and their friendships.

19. Schauffler, Robert Haven, *Arbor Day.* Moffat.
The history, spirit, and significance of Arbor Day; suggestions for the planting of trees with programs for celebrating the holiday.

20. Squire, Emma Lindsay, *The Wild Heart.* Cosmopolitan Book Corporation.
Stories of Skygak, the old-man seagull; of U-Cha-Ka, the jumper; of Leonard, the deer; of Timothy, the bear; and of several others.

21. Ward, John J., *Insect Biographies with Pen and Camera.* Stokes.
The life-stories of familiar insects, some of them man's valuable friends, some his dangerous enemies, told with many pictures.



A. LIVING WITHIN ONE'S MEANS

1. MR. VINEGAR

This old folk story came from the rural parts of England; like many similar stories, it was passed on from generation to generation by word of mouth. Read it as rapidly as you can to determine why it is placed under "Living Within One's Means."

Mr. and Mrs. Vinegar lived in a vinegar bottle. Now one day when Mr. Vinegar was away from home and Mrs. Vinegar, who was a very good housewife, was busily sweeping her house, an unlucky thump of the broom brought the whole house clitter-clatter about her ears. In an agony of grief she rushed forth to meet her husband. On seeing him she exclaimed, "Oh, Mr. Vinegar, Mr. Vinegar, we are ruined, we are ruined: I have knocked the house down, and it is all to pieces!"

Mr. Vinegar then said: "My dear, let us see what can be done. Here is the door; I will take it on my back, and we will go forth to seek our fortune."

They walked all that day and at nightfall entered a thick forest. They were both excessively tired, and Mr. Vinegar said: "My love, I will climb up into a tree, drag up the door, and you shall follow." He accordingly did so, and they both stretched their weary limbs on the door, and fell fast asleep.

In the middle of the night Mr. Vinegar was disturbed by the sound of voices beneath, and to his dismay perceived that

a party of thieves were met to divide their booty. "Here, Jack," said one, "here's five pounds for you; here, Bill, here's ten pounds for you; here, Bob, here's three pounds for you."

Mr. Vinegar could listen no longer; his terror was so intense that he trembled most violently and shook down the door on their heads. Away scampered the thieves, but Mr. Vinegar dared not quit the tree till broad daylight. He then scrambled out of the tree and went to lift up the door. What did he behold but a number of golden guineas! "Come down, Mrs. Vinegar," he cried; "come down, I say; our fortune's made! Come down, I say."

Mrs. Vinegar got down as fast as she could and saw the money with equal delight. "Now, my dear," said she, "I'll tell you what you shall do. There is a fair at the neighboring town; you shall take these forty guineas and buy a cow. I can make butter and cheese, which you shall sell at market, and we shall then be able to live very comfortably."

Mr. Vinegar joyfully assented, took the money, and went off to the fair. When he arrived, he walked up and down, and at length saw a beautiful red cow, an excellent milker and perfect in every respect. "Oh," thought Mr. Vinegar, "if I had but that cow, I should be the happiest man alive." So he offered the forty guineas for the cow, and the owner declaring that, as he was a friend, he'd oblige him, the bargain was made. Proud of his purchase, Mr. Vinegar drove the cow backwards and forwards to show it.

By-and-by he saw a man playing the bagpipes — *tweedle-dum, tweedle-dee.* The children followed him about, and he appeared to be pocketing money on all sides. "Well," thought Mr. Vinegar, "if I had but that beautiful instrument, I should be the happiest man alive — my fortune would be made." So he went up to the man. "Friend," says he, "what a beautiful instrument that is, and what a deal of money you must make."

"Why, yes," said the man, "I make a great deal of money, to be sure, and it is a wonderful instrument."

"Oh!" cried Mr. Vinegar, "how I should like to possess it!"

"Well," said the man, "as you are a friend, I don't much mind parting with it; you shall have it for that red cow."

"Done!" said the delighted Mr. Vinegar. So the beautiful red cow was given for the bagpipes. He walked up and down with his purchase; but in vain he attempted to play a tune, and instead of pocketing pence, the boys followed him hooting, laughing, and pelting.

Poor Mr. Vinegar, his fingers grew very cold, and heartily ashamed and mortified, he was leaving the town, when he met a man with a fine thick pair of gloves. "Oh, my fingers are so very cold," said Mr. Vinegar to himself. "If I had but those beautiful gloves I should be the happiest man alive." He went up to the man, and said to him: "Friend, you seem to have a capital pair of gloves there."

"Yes, truly," cried the man; "and my hands are as warm as possible this cold November day."

"Well," said Mr. Vinegar, "I should like to have them."

"What will you give?" said the man; "as you are a friend, I don't much mind letting you have them for those bag-pipes."

"Done!" cried Mr. Vinegar. He put on the gloves, and felt perfectly happy as he trudged homewards.

At last he grew very tired, when he saw a man coming towards him with a good stout stick in his hand. "Oh," said Mr. Vinegar, "that I but had that stick! I should then be the happiest man alive." He called to the man: "Friend! what a rare good stick you have got."

"Yes," said the man; "I have used it for many a long mile, and a good friend it has been; but if you have a fancy for it, as you are a friend, I don't mind giving it to you for that pair of gloves." Mr. Vinegar's hands were so warm, and his legs so tired, that he gladly exchanged.

As he drew near to the wood where he had left his wife, he heard a parrot on a tree calling out his name: "Mr. Vinegar, you foolish man, you blockhead, you simpleton; you went to

the fair and laid out all your money in buying a cow. Not content with that, you changed it for bagpipes, on which you could not play and which were not worth one-tenth of the money. You fool, you — you had no sooner got the bagpipes than you changed them for the gloves, which were not worth one-quarter of the money; and when you had got the gloves, you changed them for a miserable stick; and now for your forty guineas, cow, bagpipes, and gloves, you have nothing to show but that poor stick, which you might have cut in any hedge." On this the bird laughed loudly, and Mr. Vinegar, falling into a violent rage, threw the stick at its head. The stick lodged in the tree, and he returned to his wife without money, cow, bagpipes, gloves, or stick. She instantly gave him such a sound cudgelling that she almost broke every bone in his skin.

CLASS ACTIVITIES

1. Tell the story of misfortunes in this fairy tale.
2. How does this story resemble "The Whistle," p. 206?
3. There is an old proverb, "Easy come, easy go." Tell of other stories that illustrate the proverb.
4. Mr. Vinegar owned a bagpipe which he could not play. Think of similar misfortunes, such as having a book one cannot read, or having a friend one cannot appreciate. When you have thought of other examples, read the Introduction, p. 180, *Book One*, and explain to the class how your examples are in keeping with it.
5. Name something even less valuable for which Mr. Vinegar might have exchanged his cow or gloves.

2. THRIFT

ANONYMOUS

Without me no man has ever achieved success, nor has any nation ever become great.

I have been the bed-rock of every successful career, and the corner-stone of every fortune.

All the world knows me and most of the world heeds my warning.

The poor may have me as well as the rich.

My power is limitless, my application boundless.

He who possesses me has contentment in the present and surety for the future.

I am of greater value than pearls, rubies, and diamonds.

Once you have me, no man can take me away.

I lift my possessor to higher planes of living, increase his earning power, and bring to realization the hopes of his life.

I make a man well dressed, well housed, and well fed.

I insure against the rainy day.

I drive want and doubt and care away.

I guarantee prosperity and success to those who possess me.

I have exalted those of low degree, and those of high degree have found me a helpful friend.

To obtain me you need put out no capital but personal effort, and on all you invest in me I guarantee dividends that last through life and after.

I am free as air.

I am yours if you will take me.

I AM THRIFT.

CLASS ACTIVITIES

1. Discuss the difference between a thrifty person and a miser.
2. Thriftiness was defined on p. 328 as "being industrious in whatever you undertake, wasting neither time, money, nor materials." With this meaning in mind, read again the statements supposed to be made by Thrift, and see how every one of them is true.
3. Find and report evidences of thrift as defined in this selection, in the lives of Big Ivan, *Book One*, p. 314, and others related earlier in *Book Two*.
4. Explain how you try to be thrifty in studying your mathematics lessons. Have you a *regular* time for study? How would you apply the idea of thrift to your play?
5. *Volunteer work.* Read George Eliot's *Silas Marner*. Explain to the class the real meaning of "riches" as told in that story.

6. Topics for oral work:

SCHOOL THRIFT	HOME THRIFT
a. Proper care of books.	*a.* One way I save food.
b. Saving crayon.	*b.* Canning fruit.
c. Preserving school furniture.	*c.* Banking the furnace.
d. Saving the school building.	*d.* Keeping down the electric bill.
e. Keeping the schoolyard clean.	*e.* Saving gas in our car.

3. THE HABIT OF THRIFT

MYRON T. HERRICK

Myron T. Herrick, former governor of Ohio and ambassador to France, has been president of the Society for Savings in the city of Cleveland. His article which follows is not a story. It is a plain explanation of an important habit in the lives of successful men and women.

Read slowly; stop at and answer each of the questions printed in italics.

A great writer once said that "a nation never reaches its highest development where the banana grows." A hard climate and the struggle for a living in a new land were important elements in the making of our nation. They gave our race the endurance and courage on which character depends.

In the last fifty years wealth has so vastly increased in this country that we have drifted far from the thrifty habits of our pioneer fathers. We have been the most extravagant people in the world.

Some one says that wastefulness is not virtue, stinginess is not virtue! Then where is virtue to be found? Somewhere between, is the golden mean; but in the last fifty years we Americans have been nearer to wastefulness than to stinginess. How different would be the old age of a man or of a nation, if thrift were as natural and as easy to practice as unthrift, if virtue were as easy as vice! To save hard-earned money, to forego immediate pleasures, in order to provide comforts for the rainy day, is a hard but necessary discipline for youth to undergo.

Yet we know that among Americans systematic saving is the exception rather than the rule. By far the greater number of wage-earners spend the whole of their earnings, and in prosperous times their earnings are greater and their savings less than in less favorable years. Such waste creates the necessity for public and private charity; it opens a field for the pawnshop and the loan "shark"; it makes anxiety and distress, crime and punishment.

1. What main reason has Herrick given for thrift?

The habit of thrift is not born in us. A dog will bury a bone for to-morrow, and a squirrel will store food for the winter, but a child has to be taught to put something by for the time of need. It is easier to live and spend in the present than to save for the future. Yet in the long run the great majority of us will learn that a happy life and an old age free from anxiety depend on economy and saving during the earning years, which pass all too quickly.

The two commonest enemies of thrift are careless personal expenditures and waste in the household. One third of our food is wasted. There are few American households in which true economy would not save money and effort without in the least hurting the table. A family cannot increase an income half as easily as they can make it go farther. Especially here in America, where we have not only spent Nature's gifts with lavish hands but have also wasted the riches that belong to future generations, we, with our new vision, will find satisfaction in self-denial in order to give food to starving millions in other countries.

2. What are the greatest enemies of thrift?

Keep an accurate record of expenses; the account book is the foe of extravagance. Put your money into a bank; it will last longer there and go farther than it will when you keep it in your pocket. Get into the habit of putting away a part

of your earnings, and make up your mind to live on the remainder. Help yourself by the practice of thrift and you help your country.

The savings bank serves more than its depositors; it serves the community and the country. Scattered dollars can accomplish little, but if gathered into a common fund they grow in power. It is like the organization of a city fire department: if every man had a water tank in his dwelling for fire protection, he might be able to put out a small fire in his house; but if the water in all the tanks is collected in one great reservoir, cheaper and better protection can be given to the whole city. So the force of the people's savings is beyond comprehension, when they are gathered into the savings banks as the waters of little streams are gathered in a mighty reservoir, and poured out again through many channels to earn for the depositors by building houses, factories, railways, and steamships. That force has been our mightiest weapon of offense and defense. Millions of the savings of our boys and girls bought thrift stamps and Liberty bonds.

3. *What is the chief service of the savings bank?*

The savings account is a living, working force in the community and the nation. It works not only for its owner but for the multitude; its first aim is its most beneficent one — to protect the individual and the family as a business house is protected by reserve funds. The habit of thrift that the savings account encourages is one of the first and highest virtues; it is the foundation of character, the beginning of a successful career.

The advice that Benjamin Franklin gave the young people of his generation comes down to us through more than a hundred years with added force to-day, when a war-wasted world has special need to husband its resources:

"Save, young man, and become respectable and respected. That is the surest way. If you would be wealthy, think of

saving as well as of getting. The way to wealth is as plain as the way to market; it chiefly depends on two words — industry and frugality."

4. *State Franklin's advice in your own words*

CLASS ACTIVITIES

1. Write a complete sentence in answer to each of these questions. When you have finished, examine your sentences to see that each is correctly spelled and punctuated.
   1. Are people who live in hot climates industrious?
   2. Are the people of the United States growing more thrifty?
   3. Does charity relieve us from the necessity of thrift?
   4. Is the habit of thrift natural for most people?
   5. Would it be wise for every house to have its own fire protection?
   6. Does the savings bank help only the owner?
   7. Did Franklin stress saving more than he stressed earning?
2. How does the meaning of "thrift" in this selection compare with the meaning of "thrift" in the preceding selection?
3. *Volunteer work.* Send to the Bureau of Education, Department of the Interior, Washington, D. C., for Bulletin No. 46, *School Savings Banks*, by Sarah L. Oberholtzer. Be ready during the general review to explain to the class how school savings banks are used.

4. THE WAY TO WEALTH

BENJAMIN FRANKLIN

In this story Franklin imagines a wise man, Father Abraham, quoting from *Poor Richard's Almanac*, a publication which Franklin began in 1732 and continued until 1758. In the preceding selection Herrick quoted from Franklin. Run your eye rapidly over the following pages; see how quickly you can locate the sentence quoted by Herrick. This rapid skimming is not reading; it is a way of searching to find one small part. Thus we sometimes run through a story to read just the most interesting parts. This is usually a bad practice; if anything is worth reading at all, it is worth reading carefully. The only exceptions to careful reading are two: (*a*) skim rapidly when you are looking for some special point, and (*b*) skim when you want to get a bird's-eye view of the whole, planning to go back and read all carefully after you have a general idea of what it is about.

After the rapid scanning, read the selection aloud in class, paragraph by paragraph; discuss the meaning of every sentence that is not clear to you.

COURTEOUS READER: I stopped my horse, lately, where a great number of people were collected at an auction of merchants' goods. They were conversing on the badness of the times; and one of the company called to a plain, clean old man with white locks: "Pray, Father Abraham, what think you of the times? Will not these heavy taxes quite ruin the country? How shall we ever be able to pay them? What would you advise us to do?"

Father Abraham replied: "If you would have my advice, I will give it to you in short; for 'a word to the wise is enough,' as Poor Richard says." They joined in desiring him to speak his mind, and gathered around him while he proceeded as follows: "Friends," said he, "the taxes are indeed very heavy; and if those laid on by the Government were the only ones we had to pay, we might more easily discharge them; but we have many others, and much more grievous to some of us.

"We are taxed twice as much by our idleness, three times as much by our pride, and four times as much by our folly; and of these taxes the commissioners cannot ease or deliver us by allowing any relief. However, let us hearken to good advice, and something may be done for us. 'Heaven helps them that help themselves,' as Poor Richard says.

"It would be thought a hard government that should tax its people one-tenth part of their time to be employed in its service; but idleness taxes many of us much more; sloth, by bringing on disease, absolutely shortens life. 'Sloth, like rust, consumes faster than labor wears; while the used key is always bright,' as Poor Richard says. How much more than is necessary do we spend in sleep! forgetting that 'the sleeping fox catches no poultry,' and that there will be sleeping enough in the grave.

"'Lost time is never found again; and what we call time enough always proves little enough.' Let us, then, be up

and doing, and doing to the purpose; so by diligence shall we do more with less perplexity. 'Drive thy business, and let not that drive thee'; and 'early to bed and early to rise makes a man healthy, wealthy, and wise,' as Poor Richard says.

"So, what signifies wishing and hoping for better times? We may make these times better if we bestir ourselves. 'Industry need not wish, and he that lives upon hopes will die fasting.' 'There are no gains without pains; then help, hands, for I have no lands.' 'He that hath a trade hath an estate; and he that hath a calling hath an office of profit and honor'; but then the trade must be worked at, and the calling well followed, or neither the estate nor the office will enable us to pay our taxes. Work while it is called to-day, for you know not how much you may be hindered to-morrow. 'One to-day is worth two to-morrows,' as Poor Richard says; and further, 'Never leave that till to-morrow which you can do to-day.'

"If you were a servant, would you not be ashamed that a good master should catch you idle? Are you, then, your own master? Be ashamed to catch yourself idle, when there is so much to be done for yourself, your family, and your country. It is true, there is much to be done, and perhaps you are weak-handed; but stick to it steadily, and you will see great effects; for 'constant dropping wears away stones,' and 'little strokes fell great oaks.'

"But with our industry we must likewise be steady, settled, and careful, and oversee our own affairs with our own eyes, and not trust too much to others; for, as Poor Richard says, 'Keep thy shop, and thy shop will keep thee'; and again, 'If you would have your business done, go; if not, send'; and again, 'The eye of the master will do more work than both his hands'; and again, 'Want of care does us more damage than want of knowledge.'

"So much for industry, my friends, and attention to one's own business; but to these we must add frugality, if we would make our industry more certainly successful. A man may,

if he knows not how to save as he earns, keep his nose to the grindstone all his life, and die not worth a penny at last. If you would be wealthy, think of saving as well as of getting.'

"Away with your expensive follies, and you will not then have so much cause to complain of hard times and heavy taxes. Beware of little expenses. 'Many a little makes a mickle'; 'a small leak will sink a great ship.' Here you are all got together at this sale of fineries and knickknacks. You call them goods, but if you do not take care, they will prove evils to some of you.

"You expect they will be sold cheap, and perhaps they may be, for less than cost; but if you have no occasion for them, they must be dear to you. Remember what Poor Richard says: 'Buy what thou hast no need of, and ere long thou shalt sell thy necessaries.' 'Silks, satins, scarlet, and velvets put out the kitchen fire.' These are not the necessaries of life; they can scarcely be called the conveniences; and yet, only because they look pretty, how many want to have them!

"By these and other extravagances, the greatest are reduced to poverty, and forced to borrow of those whom they formerly despised, but who, through industry and frugality, have maintained their standing. 'If you would know the value of money, go and try to borrow some; for he that goes a-borrowing goes a-sorrowing'; and, indeed, so does he that lends to such people, when he goes to get it again.

"It is as truly folly for the poor to imitate the rich as for the frog to swell in order to equal the ox. After all, this pride of appearance can not promote health, nor ease pain; it does not increase the merit of a person; it creates envy; it hastens misfortunes.

"And what madness it must be to run in debt for unnecessary things. Think what you do when you run in debt; you give to another man power over your liberty. If you cannot pay at the time, you will be ashamed to see your creditor; you will be in fear when you speak to him; you will make poor, pitiful, sneaking excuses, and by degrees come to lose your

truthfulness, and sink into base, downright lying; for 'The second vice is lying, the first is running in debt,' as Poor Richard says; and again, 'lying rides upon debt's back.'

"This advice, my friends, is reason and wisdom; but industry and frugality and prudence may all be blasted without the blessing of Heaven. Therefore ask that blessing humbly, and be not uncharitable to those that at present seem to want it, but comfort and help them."

The old gentleman ended his harangue. The people heard it, and approved the doctrine, and immediately practiced the opposite; for the auction opened, and they began to buy extravagantly. I found the good man had thoroughly studied my almanac and mastered all I had said on these topics during the course of twenty-five years. The frequent mention he made of me must have tired anyone else; but my vanity was wonderfully delighted with it, though I was conscious that not a tenth part of the wisdom was my own which he ascribed to me, but rather the gleanings that I had made of the sense of all ages and nations.

However, I resolved to be the better for the echo of it; and, although I had at first determined to buy the stuff for a new coat, I went away resolved to wear my old one a little longer. Reader, if thou wilt do the same, thy profit will be as great as mine.

CLASS ACTIVITIES

1. By what did Father Abraham say people are taxed? Does he think it is worse to cheat an employer than it is to cheat one's self? What does Father Abraham say about fine clothes? Why did Franklin himself make no purchases? What is the difference between a luxury and a necessity?
2. Which of the two meanings of thrift has Franklin in mind? See the Foreword, p. 328, and p. 335. Support your answer with quotations from "The Way to Wealth."
3. Copy the sayings of Poor Richard found in this selection. Which apply to your life in school? Which seem most important for young people to remember? Which are most important for our life at home?

4. Read again the principles of reading for study, p. 340. Which of these are most appropriate in reading "The Way to Wealth"?
5. Copy ten words from "The Way to Wealth" upon the meaning of which you might question one of your classmates. Put in your list only words which you are certain you know. With these, make up and play in class the game "What does this word mean?"
6. What does the Boy Scout movement teach about thrift? What does the Girl Reserves, the Campfire Girls, or any other children's organization teach about thrift?
7. Make a motto which might be put over a school savings-bank.
8. *Volunteer work.* Bring to class advertisements which encourage people to spend beyond their means.
9. *Volunteer work.* Read other parts of Benjamin Franklin's *Poor Richard's Almanac.* Make a list of ten wise sayings of the old man; copy them on the blackboard and explain any of them about which the class asks questions.

Additional Readings. — 1. "Rules for Fattening Your Savings Account," J. A. House, in *American Magazine* 97 : 102–103. 2. "The Value of Time," *Compton's Pictured Encyclopedia,* 8 : 3503–3505. 3. "Waste Not, Want Not," M. Edgeworth, in *Children's Literature,* 359–377.

CLASS-LIBRARY READINGS

LIVING WITHIN ONE'S MEANS

1. "Why I Believe in Poverty," E. W. Bok, in *Stories of the Day's Work,* 98–104.
2. "The Piece of String," G. de Maupassant, in *The Promise of Country Life,* 221–228.
3. "Three Arshins of Land," L. N. Tolstoi, *ibid.,* 229–240.
4. "Fame's Little Day," S. O. Jewett, *ibid.,* 260–269.
5. "Savings Banks," *World Book,* 7 : 5225–5226.

B. SAVING HEALTH AND STRENGTH

1. THE VIGOR OF LIFE

THEODORE ROOSEVELT

Theodore Roosevelt has been called the "apostle of good health." Perhaps you can tell how he acquired this title by reading about his struggle against physical weakness.

As I was a sickly boy, with no natural bodily prowess, and lived much at home, I was at first quite unable to hold my own when thrown into contact with other boys of rougher training. I was nervous and timid. Yet from reading of the people I admired — ranging from the soldiers of Valley Forge, and Morgan's riflemen, to the heroes of my favorite stories — and from hearing of the feats performed by my Southern forefathers and kinsfolk, and from knowing my father, I felt a great admiration for men who were fearless and who could hold their own in the world. I had a great desire to be like them.

Until I was nearly fourteen I let this desire take no more definite shape than day-dreams. Then an incident happened that did me real good. Having an attack of asthma, I was sent off by myself to Moosehead Lake. On the stage-coach thither I met two other boys about my own age, but very much more competent and also much more mischievous. I have no doubt they were good-hearted boys, but they were

boys! They found that I was an easy victim, and proceeded to make life miserable for me. The worst feature was that when I finally tried to fight them I discovered that either one could handle me with easy contempt, but handle me so as not to hurt me much and yet to prevent my doing him any damage whatever in return.

The experience taught me what probably no amount of good advice could have taught me. I made up my mind that I must learn so that I would not again be put in such a helpless position; and having become quickly and bitterly conscious that I did not have the natural strength to hold my own, I decided that I would try to supply its place by training. Accordingly, with my father's hearty approval, I started to learn to box. I was a painfully slow and awkward pupil, and worked two or three years before I made any improvement whatever.

My first boxing-master was John Long. On one occasion, to excite interest among his patrons, he held a series of "championship" matches for the different weights, the prizes being, at least in my own class, pewter mugs of a value, I should suppose, of about fifty cents. Neither he nor I had any idea that I could do anything, but I was entered in the lightweight contest, in which it happened that I was pitted in succession against a couple of reedy striplings who were even worse than I. Equally to their surprise and to my own, and to John Long's, I won, and the pewter mug became one of my most prized possessions. I kept it, and talked about it, and I fear bragged about it, for a number of years; I only wish I knew where it is now. Years later I read an account of a little man who once in a fifth-rate handicap race won a worthless pewter medal and joyed in it ever after. Well, as soon as I read that story, I felt that that little man and I were brothers.

So far as I remember this was the only one of my exceedingly rare athletic triumphs which would be worth relating. I did a good deal of boxing and wrestling in college, but never attained to the first rank in either, even at my own weight.

Once, in the big contests in the gymnasium I got either into the finals or semi-finals, I forget which; but aside from this the chief part I played was to act as trial horse for some friend or classmate who did have a chance to distinguish himself in the championship contests.

I was fond of horseback-riding, but I took to it slowly and with difficulty, exactly as with boxing. It was a long time before I became even a respectable rider, and I never got much higher. I mean by this that I never became a first-flight man in the hunting field, and never even approached the bronco-busting class in the West. Any man, if he chooses, can gradually school himself to the requisite nerve, and gradually learn the requisite seat and hands, that will enable him to do respectably across country or to perform the average work on a ranch.

At intervals after leaving college I hunted on Long Island with the Meadowbrook hounds. Almost the only experience I ever had in this connection that was of any interest was on one occasion when I broke my arm. My purse did not permit me to own expensive horses. I was riding an animal, a buggy-horse originally, which its owner sold because now and then it insisted on thoughtfully lying down when in harness. It never lay down under the saddle; and when turned out to grass it would solemnly hop over the fence and get somewhere it did not belong. The last trait was what converted the beast into a hunter. It was a natural jumper, although without any speed.

On the hunt in question I got along very well until the pace winded my ex-buggy horse, and it turned a somersault over a fence. When I mounted after the fall I found I could not use my left arm. I supposed it was merely a strain. The buggy-horse was a sedate animal which I rode with a snaffle. So we pounded along at the tail of the hunt, and I did not realize that my arm was broken for three or four fences. Then we came to a big drop, and the jar made the bones slip past one another so as to throw my hand out of position. It

did not hurt me at all, and as the horse was as easy to sit as a rocking-chair, I got in at the death.

I was fond of walking and climbing. As a lad I used to go to the north woods, in Maine, both in fall and winter. There I made life friends of two men, Will Dow and Bill Sewall; I canoed with them, and tramped through the woods with them, visiting the winter logging camps on snow-shoes.

I never did much with the shotgun, but I practiced a good deal with the rifle. I had a rifle range at Sagamore Hill, where I often took friends to shoot. My own experience as regards marksmanship was much the same as my experience as regards horsemanship. There are men whose eye and hand are so quick and so sure that they achieve a perfection of marksmanship which no practice will enable ordinary men to attain. There are others who cannot learn to shoot with any accuracy at all. In between come the mass of men of ordinary abilities who, if they choose resolutely to practice, by sheer industry and judgment can make themselves fair rifle shots. The men who show such industry and judgment without special difficulty can raise themselves to the second class of respectable rifle shots; and it is to this class that I belong.

When obliged to live in cities, I found for a long time that boxing and wrestling enabled me to get a good deal of exercise in attractive form. I was reluctantly obliged to abandon both as I grew older. I dropped the wrestling earliest. When I became Governor of New York, the champion middleweight wrestler of America happened to be in Albany, and I asked him to come around three or four afternoons a week. Incidentally I may say that his presence caused me a difficulty with the Comptroller, who refused to audit a bill I put in for a wrestling-mat, explaining that I could have a billiard-table, billiards being recognized as a proper amusement for a Governor, but that a wrestling-mat symbolized something unusual and unheard of and could not be permitted.

The middleweight champion was of course so much better than I was that he could take care of himself and of me too, and see that I was not hurt — for wrestling is a much more violent amusement than boxing. But after a few months he had to go away, leaving as a substitute a good-humored stalwart professional oarsman. The oarsman turned out to know very little about wrestling. He could not even take care of himself, not to speak of me. By the end of our second afternoon one of his long ribs had been caved in and two of my short ribs badly damaged, and my left shoulder-blade so nearly shoved out of place that it creaked. He was nearly as pleased as I was when I told him I thought we would "vote the war a failure" and abandon wrestling.

After that I took up boxing again. While President I used to box with some of the aides, as well as play singlestick with General Wood. After a few years I had to abandon boxing as well as wrestling, for in one bout a young captain of artillery struck me on the eye, and the blow smashed the little blood-vessels. Fortunately it was my left eye; the sight has been dim ever since; if it had been the right eye I should have been entirely unable to shoot. Accordingly I thought it better to acknowledge that as an elderly man I would have to stop boxing. I then took up jiu-jitsu for a year or two.

When I was working very hard in the Legislature, with little chance of getting out of doors, all the exercise I got was boxing and wrestling. A young fellow turned up who was a second-rate prize-fighter, the son of one of my old boxing teachers. For several weeks I had him come round to my rooms in the morning to put on the gloves with me for half an hour. Then he suddenly stopped. Some days later I received a letter of woe from him from the jail. I found that he was by profession a burglar, who merely followed boxing as the amusement of his lighter moments, or when his regular business was dull.

—*Adapted.*

CLASS ACTIVITIES

1. What caused Roosevelt's desire to become physically vigorous? What similar influence have you had in your life? What traits of Roosevelt's character are shown in this selection? Why did not his physical weakness prove to be a handicap to him? Can you guess why he urged his own sons to go into athletics, even if they had to play on the scrub teams? Read *Roosevelt's Letters to His Children* to find out about the athletic exercises of the family.
2. Do you own anything that corresponds to Roosevelt's pewter mug or the "little man's" pewter medal? How did you get it? Is it unbecoming for a boy or girl to brag a little about some accomplishments?
3. Read aloud evidence from the tale showing that Roosevelt was not conceited about his own physical accomplishments. There are at least five passages that may be quoted.
4. What touches of humor can you find in the account? How do they help the story?
5. Read "The Vigor of Life" again, skimming over it rapidly to decide which of the forms of organization (pp. 40, 93, 258, 406) Roosevelt follows.
6. Read "The Vigor of Life" once more, this time to pick out the three parts which you would prefer to see acted in the movies. Choose the parts which have the possibilities of the most fun.
7. Explain the difference between a day-dream and an ambition.
8. *Volunteer work.* Read about Roosevelt's life on a Dakota ranch in his *Autobiography*, 94–128, and tell the class how this helped to build up his bodily strength.
9. Topics for additional reading in Roosevelt's *Autobiography:*
   a. Experiences on a Western ranch.
   b. The Rough Riders.
   c. The hunting expedition to Africa.

2. A WOULD-BE DOCTOR

FRANK PARSONS

Read this true story, told by a vocational counselor, to see his purpose in writing so frankly about the boy. With this one reading aim in mind, plan as you did on p. 272 to test your rate of silent reading.

A boy of nineteen said he wanted to be a doctor. He was sickly looking, small, thin, hollow-cheeked, with listless eye

and expressionless face. He did not smile once during the interview of more than an hour. He shook hands like a wet stick. His voice was husky and unpleasant, and his conversational power, aside from answering direct questions, seemed limited to "ss-uh," a "Yes, sir," consisting of a prolonged *s* followed by a *uh*, made by suddenly dropping the lower jaw and exploding the breath without bringing the vocal cords into action. He used this "Yes, sir" constantly, to indicate assent or that he heard what the Counselor said.

The boy had been through the grammar school and the evening high school. He was not good in any of his studies and not especially interested in any of them. His memory was poor. He ranked low in all the school tests. He had read virtually nothing outside of school except the newspapers. He had no resources and very few friends. He was untidy in appearance, in no way attractive. He knew nothing about a doctor's life; not even that he might have to get up at any time in the middle of the night, or that he had to remember books full of symptoms and remedies.

The boy had no enthusiasms, interests, or ambitions except the one consuming ambition to be something that people would respect, and he thought he could accomplish that purpose more easily by becoming a physician than in any other way.

The Counselor said, when the study was complete and the young man's record was before him:

"Now, we must be very frank with each other. That is the only way such talks can be of any value. You want me to tell you the truth just as I see it, don't you? That's why you came to me, isn't it? — not for flattery, but for a plain talk to help you understand yourself and your possibilities."

"Ss-uh."

"Don't you think a doctor should be well and strong? Doesn't he need vigorous health to stand the irregular hours, night calls, and exposure to contagious diseases?"

"Ss-uh."

"And you are not strong."

"Ss-uh."

This excuse for "Yes, sir," was repeated after almost every sentence of the Counselor's remarks, but will be omitted here.

"And you haven't the pleasant manners a doctor ought to have. You have not smiled or shown any expressiveness in your face the whole time you have been answering my questions and telling me about your life and record. Your hand was moist and unpleasant when you shook hands. And you put your fingers in my hand without any pressure or show of interest. I might as well have shaken hands with a clam."

The Counselor's criticisms were very frank and forceful; but he smiled at the boy as he spoke, and his tones were gentle and sympathetic, so that the young man was not offended or repelled, but seemed attracted and pleased, on the whole, by the frank and kindly interest of the Counselor in his welfare.

"You might cultivate a cordial smile, a friendly handshake, and winning manners, and you ought to develop good manners, no matter what business you follow; but it will take much time and effort, for good manners do not come natural to you.

"You should cultivate your voice and use smooth, clear tones with vigor in them. At present your voice is listless, husky, and unpleasant.

"And read good, solid books, history, economics, government, and talk about them. Develop your conversational power. At present you do not even seem able to say 'Yes, sir' distinctly.

"You want to win respect, to be something your fellowmen will admire. But it is not necessary to be a doctor in order to be respectable. Any man who lives a useful life, does his work well, takes care of his family, is a good citizen, and lives a clean, true, kindly, helpful life, will be respected and loved, whether he is a farmer, carpenter, lawyer, doctor, blacksmith, teamster, clerk, or factory worker.

"People will respect a carpenter who knows his business and does his work well, more than they will a doctor who doesn't know his business. It is a question of fitness, knowledge, skill, and usefulness. A bad doctor is one of the least respectable of men. Think of the blunders he is likely to make, the people he is likely to kill or injure through wrong medicines or lack of skill."

The Counselor then painted two word-pictures substantially as follows:

"Suppose two men are trying to build up a medical practice. One is tall, strong, and healthy, with a winning smile, a cordial way of shaking hands, a pleasant voice, and engaging manners. He is bright, cheery, wholesome. People like to have him visit them; his presence in the sickroom is a tonic worth as much as the medicine he gives. He has a good education; has read many good books; he keeps posted through the leading magazines and understands the public questions of the day, so that he can talk to all sorts of people about the things that interest them. He has a good memory, enabling him to carry in his mind the symptoms and medical data a doctor ought to know, and can tell a case of small-pox, scarlet fever, diphtheria, or any other disease, without running back to his office to study his books. He has friends to help him get patients, and money enough to live comfortably three or four years while he is building up a practice.

"The other man is small, thin, hollow-cheeked, sickly-looking, with a poor memory, little education, virtually no reading, no resources, undeveloped manners, a husky, unpleasant voice, no conversational ability — nothing to attract people or inspire their confidence, and with mental handicaps that would make it very difficult for him to master the profession. He has no memory to hold the bookfuls of symptoms and remedies; his patient might die while he was going back to the office to study up what was the matter.

"Which of these two men would have the best chance of success?"

"The first one."

"And which most closely resembles your own case?"

"The second."

"Do you really think, then, that you would have a good chance to make a success of the medical profession?"

"I don't know that I would. I never thought of it this way before. I just knew it was a good business highly respected, and that's what I wanted."

"But there may be other highly respectable lines of work in which you would not be at so great a disadvantage.

"Suppose a lot of races were to be run. In some of them you would have to run with a heavy iron ball tied round your leg, while others ran free. In other races you would run free as well as your competitors, and have something like a fair chance. Which sort of race would you enter?"

"I'd rather run free, of course."

"Well, your hands appear to be just as good as anybody's. You can exercise care and industry. You can remember a few things, and can be successful if you don't attempt too much. If you go into some sort of work in which you will not need to meet as many people as a doctor must, or remember such a vast mass of facts — some work in which the memory and the personal element are not such important factors, so that your handicap in those respects will not cripple you — you may run the race on fairly equal terms and have a good chance of success. Some mechanical or manufacturing industry or wholesale trade, which would enable you to handle stock, to take care of poultry, sheep, cows, or give you other outdoor work, would offer you good opportunities and be better for your health than the irregular life of a physician.

"I suggest that you visit stock and dairy farms, carpenter shops, shoe factories, wholesale stores, see a good many industries in the lines I have spoken of, read about them, talk with the workmen and managers, try your hand if you can at various sorts of work, and make up your mind whether

there is not some business that will interest you and offer you a fairly equal opportunity free from the special handicaps you would have to overcome in a doctor's life."

The Counselor also made specific suggestions about the cultivation of memory and manners, and about a systematic course of reading and study to prepare for citizenship, that would entitle the young man to the esteem of his fellow citizens.

As the youth rose to go, he wiped his hand so it would be dry; he shook hands with some warmth and thanked the Counselor for his suggestions, which he said he would try to follow. He smiled for the first time as he said good-bye, and the Counselor, noting it, said:

"There! You can smile. You can make your face light up if you choose. Learn to do it often. Practise speaking before the glass till you can change the expression on your face so that it will not stay in one position all the evening like a plaster mask. And try to stop saying 'Ss-uh.' When you want to say 'Yes, sir,' say it distinctly in a clear, manly tone, and not under your breath like a steam-valve on an engine. A good many times when you say 'Ss-uh' it isn't necessary to say anything, and the rest of the time you should say 'Yes, sir,' or make some definite comment in a clear voice full of life and interest. Watch other people, imitate those you admire, and avoid the actions that repel or displease you in people you do not like."

"Ss-uh — yes, sir," said the boy, with another faint smile, "I'll try." And he was gone.

He told another young man a few days later that the Counselor said he would go through him with a lantern, and he had certainly done so. He was glad of it, for he learned more about himself that evening than in all his life before; though part of it was like taking bitter medicine all the time, it was all right, and he knew it would help him a great deal.

—*Adapted.*

CLASS ACTIVITIES

1. Calculate your silent reading rate for this story. Have the slower readers increased their speed and the very rapid readers reduced their speed since the test on p. 272?
2. The boy in this story had two good traits. What were they? Read parts to support your answer.
3. Read aloud the sentence which you consider the most important in the counselor's advice. What was the boy's most prominent defect? Which of the defects could he have overcome if he had possessed average intelligence and strong will?
4. Name lines of work which require about the same qualities as the medical profession.
5. What do you think of the counselor? What advice does Parsons give that would apply to any line of work? What advice that would help you personally? Is it fair to give such a boy anything less than the truth about his fitness for an occupation?
6. Practise shaking hands with one of your classmates "like a wet stick"; like a pump-handle; like a simpering woman; like a pompous old gentleman. Decide by class discussion what a good handshake for a healthy boy or girl of fourteen or fifteen ought to be. Try saying "Yes, sir," as the boy did. How do you say "Yes, sir"? Why does Parsons stress the importance of shaking hands and of saying "Yes, sir"?
7. Suggestion: make a page for your notebooks entitled "The Necessary Qualities for my Chosen Work." What qualities will your school work help you develop?

3. FRANKLIN AND MADAM GOUT

BENJAMIN FRANKLIN

Franklin calls Madam Gout his *enemy;* Madam Gout calls herself Franklin's *real friend.* Find out which is right. May they both be right?

These words may bother you; examine their meaning before you begin to read.

gout: a disease due to overeating.
glutton: one who eats too much.
tippler: one who drinks too much.
humors: the fluids of the body, blood.
maladies: illnesses.
dissipating: wasting.
commodious: large, ample.
terrace: a raised level place in a lawn.
maxims: rules.

TIME: MIDNIGHT, 22 OCTOBER, 1780

Franklin. Eh, oh! eh! what have I done to merit these cruel sufferings?

Gout. Many things; you have eaten and drunk too freely, and too much indulged those legs of yours in their indolence.

Franklin. Who is it that accuses me?

Gout. It is I, even I, the Gout.

Franklin. What! my enemy in person?

Gout. No, not your enemy.

Franklin. I repeat it, my enemy; for you would not only torment my body to death, but ruin my good name. You reproach me as a glutton and a tippler; now, all the world that knows me will allow that I am neither the one nor the other.

Gout. The world may think as it pleases; it is always very kind to itself, and sometimes to its friends; but I know very well that the quantity of meat and drink proper for a man who takes a reasonable degree of exercise would be too much for another who never takes any.

Franklin. I take — eh! oh! — as much exercise — eh! — as I can, Madam Gout. You know my inactive life, and on that account it would seem, Madam Gout, as if you might spare me a little, seeing it is not altogether my own fault.

Gout. Not a jot; your eloquence and your politeness are thrown away; your apology avails nothing. If your situation in life is an inactive one, your amusements, your recreations, at least, should be active. You ought to walk or ride, or, if the weather prevents that, play at billiards. You eat an excessive breakfast, four dishes of tea, with cream, and one or two buttered toasts, with slices of dried beef, which I fancy are not things the most easily digested. Immediately afterward you sit down to write at your desk, or converse with persons who apply to you on business. Thus the time passes till one o'clock, without any kind of bodily exercise. But all this I could pardon, in regard, as you say, to your inactive condi-

tion. But what is your practice after dinner? Walking in the beautiful gardens of those friends with whom you have dined would be the choice of men of sense; yours is to be fixed down to chess, where you are found engaged for two or three hours. What can be expected from such a course of living but a body full of humors, ready to fall a prey to all dangerous maladies, if I, the Gout, did not occasionally bring you relief by agitating those humors, and so purifying them? Fie, Mr. Franklin! But, amidst my instructions, I had almost forgot my wholesome corrections; so take that twinge — and that.

Franklin. Oh! eh! oh! ohh! — As much instruction as you please, Madam Gout, and as many reproaches; but pray, madam, a truce with your corrections.

Gout. No, sir, no; I will not abate a particle of what is so much for your good — therefore ——

Franklin. Oh! ehh! — It is not fair to say I take no exercise, when I do very often, going out to dine and returning in my carriage.

Gout. That, of all imaginable exercises, is the most slight and insignificant, if you allude to the motion of a carriage suspended upon springs. Providence has appointed few to roll in carriages, while He has given to all a pair of legs, which are machines infinitely more serviceable. Be grateful, then, and make a proper use of yours.

Franklin. Your reasonings grow very tiresome.

Gout. I stand corrected. I will be silent and continue my office: take that — and that.

Franklin. Oh! ohh! — Talk on, I pray you!

Gout. No, no; I have a good number of twinges for you to-night, and you may be sure of more to-morrow.

Franklin. What! with such a fever! I shall go distracted. — Oh! eh! — Can no one bear it for me?

Gout. Ask that of your horses; they have served you faithfully.

Franklin. How can you so cruelly sport with my torments?

Gout. Sport! I am very serious. I have here a list of offenses against your own health, distinctly written, and can justify every stroke inflicted on you.

Franklin. Read it, then.

Gout. It is too long a detail; but I will briefly mention some particulars.

Franklin. Proceed. I am all attention.

Gout. Do you remember how often you have promised yourself, the following morning, a walk in the grove or in the garden, and have broken your promise, saying at one time it was too cold, at another too warm, too windy, too moist, or what else you pleased; when in truth it was too nothing but your great love of ease?

Franklin. That, I confess, may have happened occasionally, probably ten times in a year.

Gout. Your confession is very far short of the truth; the total amount is one hundred and ninety-nine times.

Franklin. Is it possible?

Gout. So possible that it is fact; you may rely on the accuracy of my statement. You know Mr. Brillon's gardens, and what fine walks they contain; you know the handsome flight of an hundred steps which lead from the terrace above to the lawn below. You have been in the practice of visiting this amiable family twice a week, after dinner, and it is a maxim of your own that "a man may take as much exercise in walking a mile, up and down stairs, as in ten on level ground." What an opportunity was here for you to have had exercise in both these ways! Did you embrace it? and how often?

Franklin. I cannot immediately answer that question.

Gout. I will do it for you. Not once.

Franklin. Not once?

Gout. Even so. During the summer you went there at six o'clock. You found the charming lady, with her lovely children and friends, eager to walk with you and entertain you with their agreeable conversation; and what has been your choice? Why, to sit on the terrace, satisfying yourself

with the fine view and passing your eye over the beauties of the gardens below, without taking one step to descend and walk about in them. On the contrary, you call for tea and the chessboard; and lo! you are occupied in your seat till nine o'clock, and that besides two hours' play after dinner; and then, instead of walking home, which would have bestirred you a little, you step into your carriage. How absurd to suppose that all this carelessness can be accompanied by health!

Franklin. I am convinced now of the justice of Poor Richard's remark, that "our debts and our sins are always greater than we think for."

Gout. So it is. You wise men are sages in your maxims and fools in your conduct.

Franklin. But do you charge among my crimes that I return in a carriage from Mr. Brillon's?

Gout. Certainly; for, having been seated all the while, you cannot make the fatigue of the day an excuse, and cannot need, therefore, the relief of a carriage.

Franklin. What, then, would you have me do with my carriage?

Gout. Burn it, if you choose; you would at least get heat out of it once in this way; or, if you dislike that proposal, here's another for you; observe the poor peasants who work in the vineyards and grounds; you may find every day, among these deserving creatures, four or five old men and women, bent and perhaps crippled by weight of years and too long and too great labor. After a most fatiguing day, these people have to trudge a mile or two to their smoky huts. Order your coachman to set them down. This is an act that will be good for your soul, and at the same time, after your visit to the Brillons, if you return on foot, that will be good for your body.

Franklin. Ah! how tiresome you are!

Gout. Well, then, to my office; it should not be forgotten that I am your physician. — There.

Franklin. Ohhh! — What a cruel physician!

Gout. How ungrateful you are to say so! Is it not I who, in the character of your physician, have saved you from the palsy, dropsy, and apoplexy? One or other of which would have done for you long ago, but for me.

Franklin. I submit, and thank you for the past, but entreat that you do not visit me in the future; for, in my mind, one had better die than be cured so dolefully. — Oh! oh! — For heaven's sake, leave me, and I promise faithfully never more to play at chess, but to take exercise daily and live temperately.

Gout. I know you too well. You promise fair; but after a few months of good health you will return to your old habits; your fine promises will be forgotten like the forms of the last year's clouds. Let us then finish the account, and I will go. But I leave you with an assurance of visiting you again at a proper time and place; for my object is your good, and you are sensible now that I am your *real friend.*

CLASS ACTIVITIES

1. What habits brought on Franklin's condition? Do you suppose Frankin meant to write about gout only? Explain.
2. Explain the meaning of "live temperately," and give examples from the life of some one you know.
3. Why did Gout consider herself a friend? How might a toothache be a friend to you? Aching eyes? Stomach ache?
4. What rules of health are suggested by this conversation?
5. Why does your school have a recess period? Group athletic drill? What else does it provide for warding off enemies from children?
6. *Volunteer work.* A committee volunteer to prepare a list of health rules for pupils in your grade at school.

Additional Readings. — 1. "A War Worth Waging," R. Barry, in *Century Magazine*, 64 : 31–38. 2. "Disease-Carrying House Fly," D. D. Jackson, in *Review of Reviews*, 49 : 44–48. 3. "A Battle for Health in a Dairy Herd," B. E. Powell, in *American Review of Reviews*, 48 : 65–69. 4. "Our Army *vs.* a Bacillus," A. G. Grinnell, in *National Geographic Magazine*, 24 : 1146–1152. 5. "National Waste Through Ill Health," H. W. Lanier, in *World's Work*, 63 : 299–303. 6. "An In-

telligently Selected Diet," C. M. Denton, in *Lessons in Community and National Life*, B-7. 7. "The United States Public Health Service," J. W. Trask, *ibid.*, B-14. 8. "How the City Cares for Health," F. D. Bramhall, *ibid.*, C-19. 9. "Conserving the Nation's Man Power," R. Blue, in *National Geographic Magazine*, 32 : 255–278. 10. "Uncle Sam Fighting the Disease of the World," W. A. Du Puy, in *American Review of Reviews*, 49 : 301–307.

4. TO SLEEP

WILLIAM WORDSWORTH

A flock of sheep that leisurely pass by,
One after one; the sound of rain, and bees
Murmuring; the fall of rivers, winds, and seas,
Smooth fields, white sheets of water, and pure sky;
I've thought of all by turns, and yet do lie
Sleepless; and soon the small birds' melodies
Must hear, first uttered from my orchard trees;
And the first cuckoo's melancholy cry.

Even thus last night, and two nights more I lay,
And could not win thee, Sleep! by any stealth:
So do not let me wear to-night away:
Without Thee what is all the morning's wealth?
Come, blessed barrier between day and day,
Dear mother of fresh thought and joyous health!

CLASS ACTIVITIES

1. What lines make the poem appropriate for "Saving and Conserving"?
2. Why does it seem right to call sleep "the mother of fresh thought and joyous health"?
3. *Volunteer work.* Read Arnold Bennett's *How to Live on Twenty-four Hours a Day.* Report to the class what he says about sleep.

CLASS-LIBRARY READINGS

SAVING HEALTH AND STRENGTH

1. "The Valley," C. Harris, in *The Promise of Country Life*, 97–105.
2. "The Woman Physician's Opportunity," M. Tracy, in *Opportunities of To-day*, 239–247.
3. "Nursing," L. M. Powell, *ibid.*, 255–258.
4. "The Hospital Worker," H. E. Gilson, *ibid.*, 259–262.
5. "France's Fighting Woman Doctor," D. Canfield, in *Joy in Work*, 32–65.
6. "Fresh Air and Healthy Lives," *Book of Knowledge*, 6 : 1787–1789.
7. "How and When to Eat," *ibid.*, 10 : 3045–3048.
8. "Some Insect Foes of Man," *ibid.*, 10 : 3139–3148.
9. "The World's Great Doctors," *ibid.*, 13 : 4195–4204.
10. "The Wonderful River of Air," *ibid.*, 20 : 6251–6255.
11. "The Man Who Vanquished the Mosquito," *Compton's Pictured Encyclopedia*, 4 : 1490–1491.

C. PROTECTING USEFUL BIRDS

1. STUDIDITY STREET

RALPH HODGSON

I saw with open eyes
Singing birds sweet
Sold in the shops
For people to eat.
Sold in the shops
Of Stupidity Street.

I saw in a vision
The worm in the wheat,
And in the shops nothing
For people to eat;
Nothing for sale in
Stupidity Street.

2. OUR VANISHING BIRDS

RUDOLF C. CRONAU

Does Cronau give evidence to prove that the poem, "Stupidity Street," is based on facts?

Only half a century ago America offered to the hunter greater attractions than any other country in the world. The wild turkey, one of the noblest of the feathered game,

clucked and gobbled in all beech and chestnut forests of the East. The ruffed grouse was an inhabitant of every hillside thicket. "Bob White's" cheerful cry rang in all rural districts; the snipe made the marshes merry in the spring with its shrill "skeap"; the ponds, lakes, and rivers were alive with countless geese, swans, and ducks; the sky was sometimes darkened by clouds of wild pigeons.

Those golden days of the sportsman have gone. The great flocks of migratory fowl are no longer seen and whole districts once filled with game birds are silent and dead, and present not a single feather to the hunter. When we ask for the cause that led up to the present scarcity of game birds, we must answer again: "Waste! Shameless waste!"

In the days of plenty and abundance men forgot that a time of need might come. Protection and game-laws were sneered at by the people as an infringement of their rights. The entire year was one "open season" from the first of January to the last of December, and the amount of shooting, snaring, and trapping done by young and old was only limited by their desires.

The results of such reckless waste became apparent in the course of time. First the bird lovers and the sportsmen became alarmed by the decided decrease of bird life in the United States. Once plentiful birds had disappeared entirely or greatly diminished in number. Some species were found to be almost gone. To determine how far destruction had gone, as well as the chief causes of it, Wm. T. Hornaday, of the "New York Zoological Park," in the year 1900, made an attempt to take a census of our feathered friends. To obtain information he sent inquiries to persons in all parts of the country who were competent to answer.

The fact that the inquiry was intended as a step for saving the birds awakened keen interest and brought forth reports from nearly 200 observers, representing 37 States and Territories. Fully 90 per cent of the reports had been prepared evidently with conscientious thought and care. Many were

very full and particularly valuable by reason of their wealth of detail. The closeness with which the estimates of different observers in a given State or region agreed with one another was quite surprising, and could be justly regarded as evidence of their scientific value. Almost everywhere the reports revealed a lamentable falling off in bird life, the decrease reaching in many States over 50, and in some States over 70 per cent. Florida stood at the head of the list with a loss of 77 per cent.

The reports further disclosed the fact that the boys of America are the chief destroyers of our small non-edible birds. Many boys shoot the birds, a great many devote their energies to gathering eggs, and some do both. They have many able assistants, however. Wherever there are birds that are considered edible, or classed as "game," there the sportsman, the idler, the farmer, and the market-hunter are found, all eager to "kill something" and to make "a good bag"; not to forget the "game hog," who finds delight in having himself photographed surrounded by the fruits of "a day's sport," and regards that photograph as imperfect unless he has 100 dead ducks, grouse, or geese around him.

Whatever species of bird-life we may take up, the ravages done by man are noticeable at once. The wild turkey, monarch of all feathered game in North America, has become almost extinct. This species is now confined to a few spots in southern Illinois and Indiana, and to some forests of the Alleghanies, but is surely destined to dwindle away and become extinct. The same is true with the swan, the wood-duck, the canvasback duck, the ivory-billed woodpecker, the Carolina paroquet and a number of other birds.

The prairie-chicken, with which two generations ago the prairies of Ohio, Indiana, Michigan, and Illinois were fairly alive, is now to be found only in the Western States. And even there their range is rapidly contracting, notwithstanding the fact that the prairie-chickens are under the protection of the law, and the shooting season is limited to three months.

The most horrible case of wasteful extermination of animal life by men is that of the passenger pigeon. As its history illustrates best the unpardonable waste of animal life, it may be told here somewhat in detail.

The great naturalist, John James Audubon, writes in his *Ornithological Biography:* "In the autumn of 1813, I left my house at Henderson, on my way to Louisville. In passing over the Barrens, I observed the pigeons flying in greater numbers than I thought I had ever seen before. Feeling an inclination to count the flocks that might pass within the reach of my eye in one hour, I dismounted, and began to mark with my pencil, making a dot for every flock that passed. In a short time, finding the task impracticable, as the birds poured in in countless multitudes, I rose, and counting the dots then put down, found that I had made one hundred and sixty-three in twenty-one minutes. The air was literally filled with pigeons; the light of noonday was obscured as by an eclipse, and the continued buzz of wings had a tendency to lull my senses to repose. While waiting for dinner at Young's Inn, I saw immense legions still going by.

"I cannot describe to you the extreme beauty of their aerial evolutions, when a hawk chanced to press upon the rear of the flock. At once, like a torrent, and with a noise like thunder, they rushed into a compact mass, pressing upon each other towards the center. In these almost solid masses, they darted forward in undulating and singular lines, descended and swept close over the earth, mounted perpendicularly so as to resemble a vast column, and, when high, wheeled and twisted within their continued lines, which then resembled the coils of a gigantic serpent.

"Before sunset I reached Louisville, distant fifty-five miles. The pigeons were still passing in undiminished numbers, and continued to do so for three days in succession.

"It may not, perhaps, be out of place to attempt an estimate of the number of pigeons contained in one of these mighty flocks. Take a column of one mile in breadth, which

is far below the average size; suppose it passing over us without interruption for three hours, at the rate of one mile in a minute. This will give a parallelogram covering one hundred and eighty square miles. Allowing two pigeons to the square yard, we have 100,150,136,000 pigeons in one flock!"

To Pokagon, the Pottawatomie chief, we are indebted for a description of the methods of catching pigeons employed by the whites: "White men commenced netting the pigeons for market about the year 1840. These men were known as professional pigeoners, from the fact that they banded together, so as to keep in telegraphic communication with the great moving flocks. In this they became so expert as to be almost continually on the borders of their brooding places. As they were always prepared with trained stool-pigeons which they carried with them, they were able to call down the passing flocks and secure as many by net as they were able to pack and ship to market. In the year 1848 80 tons of these birds were shipped from one county in New York, and from that time to 1878 the wholesale slaughter continued to increase. In 1878 there were shipped from Michigan not less than 300 tons of pigeons. During the thirty years of the greatest slaughter there must have been shipped to our great cities 5,700 tons; allowing each pigeon to weigh one half pound shows 23,000,000 of these birds. Think of it! And all these were caught during the brooding season, which must have decreased their numbers as many more."

When in 1881 large swarms of pigeons nested near Petoskey, Michigan, more than 500 men appeared carrying enormous nets. During the season each hunter caught about 20,000 birds, which would make 10,000,000 for all. On many days two trains loaded with birds were dispatched to Chicago.

In the following years this wasteful slaughter was repeated. Spies were out watching the location of the roosts, and when these were well established, the main body of hunters came on, armed with nets and stool-pigeons. Hundreds of thousands of birds were taken. Such as had been caught alive were packed

into crates and shipped to sportsmen's clubs all over the country. If they survived the stifling coops, it was only to meet a more shameful death, as they sprang from a plunge-trap with freedom just before them, or were filled with shot and left to die a lingering death beyond the club grounds.

All this could not last long. The swarms of pigeons began rapidly to decrease. In 1888 they came for the last time in only small flocks. After these had been bagged, the netting had to be given up through lack of birds. The hunter stared in wonder and in vain, hoping for the return of the golden days of old. Although the wild pigeons are now protected by law it seems that the very few shattered remnants of the once mighty hosts have left the haunts of civilization forever.

While annually millions of birds are killed for food or sport, other millions are destroyed for the demands of fashion. Since about the year 1880 queen fashion decreed that complete birds should be used to decorate ladies' hats, the wholesale firms sent out collectors, who slaughtered every bird which possessed the fatal gift of "plumes" fit to adorn a milliner's window or the bonnet of a society woman. What fashion decrees must, of necessity, be followed. And so millions upon millions of birds were sacrificed to it without mercy. Some species have been utterly exterminated.

Time was — only a few years back — when the graceful little terns or "sea swallows" were plentiful on our Atlantic beaches. Flocks of the tiny gulls could be seen at the water's edge, on the wave, and on the sand, restless and constantly flying from one point to another. They were bred in great numbers; they laid their eggs in the sand above high tide. But their prettily pointed wings of pearl color and jet-black attracted the attention of queen fashion. The collectors came, and in two or three years had killed all. Now these birds of beautiful plumage have disappeared. One New York dealer had at one time in stock 30,000 little terns, and one gunner sent to the market over 3,000 of them in one year. In one

season on Cape Cod, Massachusetts, 40,000 were killed, and an equal number on Cobbs' Island, Virginia.

The destruction of herons has been, if possible, even more vile. In 1880 the eastern coast of Florida and the bayou districts of the Gulf States swarmed with herons, eight different species of them. The white herons, or egrets, which furnish the aigrette-plumes, were so abundant that the broad savannas were often white with them, and the mangrove islets on which they roosted are said to have looked as though a great white sheet had been thrown over them; especially in the nesting season, during which the herons gathered at accustomed places, to rear their young in a sort of communal nursery. Here they would assemble by hundreds or even thousands of pairs, and in such close company that fifty or even a hundred nests were often built on a single tree.

Unfortunately for these birds, both sexes during the nesting season become adorned with delicate spraylike plumes, the "aigrettes," which constitute the heron's wedding-dress and which are worn only during that season. Covetous millinery traders thought these beauties valuable acquisitions to their stock and offered to pay five cents, ten cents, and later more than that for an aigrette. Mercenary hunters were set loose upon these birds. In order to secure the plumes at their best, the hunters concealed themselves in one of the breeding-grounds or "heronries," and killed the parent birds as they returned with food for their young.

This simple but effective method resulted not only in the death of the old birds but in the starvation of the young, who stretched their little thin necks and piped piteously a while for the food that never came — for the parents that were murdered at the regular market price of 5 or 10 cents apiece.

Unfortunately, the demands of the millinery trade were not confined to herons and terns. Anything wearing feathers was acceptable, none being too plainly colored to be worn, birds with bright colors naturally being preferred. And so, after

the coasts of the Southern States had been devastated, the destruction was repeated in California, Washington, and Oregon; and later on in the West Indies, in Mexico, Central and South America. Species that are extensively employed for decorative purposes, as the ibises, flamingoes, roseate spoonbills, king birds, plovers, sandpipers, and others, were threatened with extermination the world over.

Collectors of birds' eggs are also responsible for the destruction of the bird species. The collections in scientific societies are of small importance. Probably there are not 500,000 specimens in all the collections made in a hundred years. Much greater harm is done by the eggers, who collect eggs for marketing purposes. In May, 1900, Government ornithologists reported that on some of the Hawaiian Islands the albatross was destroyed literally in myriads by egg-hunters. Though the birds themselves were not seriously disturbed, the removal of their eggs, by the wheelbarrow load and by the carload, must soon result in the practical extinction of the species in that locality.

The eggs of the Pallas murre are collected for food on the Pribylof Islands, in Bering Sea. W. H. Elliott, the naturalist, reports that on the occasion of his first visit to Walrus Island, in July, 1872, six men in less than three hours loaded with eggs to the water's edge a large boat, carrying four tons. Large colonies of water birds such as pelicans, gulls, terns, and herons may be found at points along the coasts of the United States during the breeding season, and in certain localities the eggs of some of these species are highly esteemed and find a ready market, as on the eastern shore of Virginia. There the eggs of the laughing gull are considered a great delicacy, and are gathered in large numbers for sale to hotels and private individuals. But in the gratification of this taste there is the same tendency toward extermination which is manifested in the case of feather collecting.

Eminent authorities on agriculture have stated that at least one-tenth of all the cultivated crops of the United States are

annually destroyed by ravenous insects, and that the aggregate amount of damage done is upward of three hundred to four hundred million dollars every year. The products of agriculture and of our forests are the fundamental causes of our wealth. But these products would be impossible without the help of our birds. The damage done to our crops and forests by insects and rodents amounts to $800,000,000 annually! When the public begins to think of these enormous losses, which can be prevented to a great extent by such work as that of the Audubon Societies, I feel convinced that we shall find all the moral and financial support we need.

The fact that insect depredations are increasing in extent each year makes it plain that something must be done to prevent it, and that quickly. We have found that although we are continually making increased efforts to destroy these pests, our efforts avail but little and the destruction of our crops goes on. What, then, is to be done?

The answer is plain. Heed the advice of the naturalist, who has made a study of the life histories of the various other living creatures in the world. Do not condemn what he says, without at least examining into it a little. In his desire for bird protection the naturalist is not prompted by sentiment alone; far from it; although from the sentimental standpoint alone the friend of birds would have more than sufficient grounds for making such an appeal.

Briefly told, the economic relation of birds to man lies in the services which they render in checking undue increase of insects, in devouring small rodents, in destroying the seeds of noxious weeds, and in acting as scavengers on land and water. A perusal of the various works that have been written on the economic relations of birds to man will support the statement that if we were deprived of the services of birds the earth would soon become uninhabitable.

CLASS ACTIVITIES

1. Name the three chief reasons why the birds of America have been recklessly destroyed. What purpose lay back of most of the destruction? Does Cronau think that such enormous numbers of carrier pigeons were desirable?
2. What parts of Cronau's discussion do you select to show that the poem, "Stupidity Street," rests on facts? What is the chief penalty the nation pays for the destruction of birds?
3. How did the carrier pigeons protect themselves against the hawk? Tell of similar devices of protection by other creatures.
4. Write after the Roman numerals in the following outline the chief causes for destruction of birds and fill in the subheads with the proper details taken from the selection.

CAUSES FOR OUR VANISHING BIRDS

I. (Food).	II. (Decoration).	III. (Egg-hunting).
a.	*a.*	*a.*
b.	*b.*	*b.*
c.	*c.*	

5. *Volunteer work.*
   - *a.* Supplement with pictures, poems, descriptions, or facts the information about several kinds of birds named in this selection.
   - *b.* Ask an old resident about birds once plentiful in your locality.

6. *Topics for talks.*
   - *a.* Birds found in my yard or garden.
   - *b.* Why national rather than State protection of birds is necessary.
   - *c.* A bird with interesting habits. (Supplement with pictures.)
   - *d.* How birds help the farmer.
   - *e.* Shutting a canary in a cage.

ADDITIONAL READINGS. — 1. "The Value of Birds to Man," J. Buckland, in *Report of Smithsonian Institution*, 1913. 2. "Federal Protection of Migratory Birds," G. Gladden, in *Outing*, 62: 345–349. 3. "Shall We Feed the Birds?" in *Literary Digest*, 52: 1214–1217. 4. "A City Bat Roost," *ibid.*, 50: 873. 5. "A New Method of Bird Study," *ibid.*, 48: 102–103. 6. "Our Greatest Travelers," W. W. Cooke, in *National Geographic Magazine*, 22: 346–365. 7. "The Fight for Bird Protection," T. G. Pearson, in *World's Work*. 8. "Birds and Saving," R. H. Moulton, in *St. Nicholas*, 40: 651.

3. A PETITION OF THE BIRDS

GEORGE F. HOAR

George F. Hoar, a United States Senator of Massachusetts, presented an appeal for bird protection to the legislature of his State. He made the birds speak for themselves.

THE BIRDS' LETTER

To the Great and General Court of the Commonwealth of Massachusetts: We, the song birds of Massachusetts and their playfellows, make this petition.

We know more about you than you think we do. We know how good you are. We have hopped about the roofs and looked in at the windows of the houses you have built for poor and sick and hungry people and little lame and deaf and blind children. We have built our nests in the trees and sung many a song as we flew about the gardens and parks you have made so beautiful for your own children, especially your poor children, to play in.

Every year we fly a great way over the country, keeping all the time where the sun is bright and warm; and we know that when you do anything, other people all over the land between the seas and the Great Lakes find it out, and pretty soon will try to do the same thing. We know; you know.

We are Americans, just as you are. Some of us, like some of you, came from across the great sea, but most of us have lived here a long while; and birds like ourselves welcomed your fathers when they came here many years ago. Our fathers and mothers have always done their best to please your fathers and mothers.

Now we have a sad story to tell you. Thoughtless people are trying to destroy us. They kill us because our feathers are beautiful. Even pretty and sweet girls, who we should think would be our best friends, kill our brothers and children so that they may wear their plumage on their hats.

Sometimes people kill us heedlessly. Cruel boys destroy our nests and steal our eggs and our young ones. People with

guns and snares lie in wait to kill us, as if the place for a bird were not in the sky, alive, but in the shop window or under a glass case. If this goes on much longer all your song birds will be gone. Already, we are told, in some other countries that used to be full of birds, they are almost gone.

Now we humbly pray that you stop all this and will save us from this sad fate. You have already made a law that no one shall kill a harmless song bird or destroy our nests or our eggs. Will you please to make another that no one shall wear our feathers, so that we shall not be killed for them? We want them all ourselves. We are told that it is as easy for you to help us as for blackbirds to whistle.

If you will, we know how to pay you a hundred times over. We will build pretty houses which you will like to see. We will teach your children to keep themselves clean and neat. We will show them how to live together in peace and love and to agree as we do in our play about your gardens and flower-beds — ourselves like flowers on wings — without any cost to you. We will destroy the insects and worms that spoil your cherries and currants and plums and apples and roses. We will give you our best songs and make the spring more beautiful and the summer sweeter to you.

Every June morning when you go out into the field, Oriole and Blackbird and Bobolink will fly after you and make the day more delightful to you; and when you go home tired at sundown Vesper Sparrow will tell you how grateful we are. When you sit on your porch after dark, Fife Bird and Hermit Thrush and Wood Thrush will sing to you, and even Whippoorwill will cheer up a little. We know where we are safe. All the birds will come to live in Massachusetts again, and everybody who loves music will like to make a summer home with you.

The signers are: Brown Thrasher, Robert of Lincoln, Hermit Thrush, Vesper Sparrow, Robin Redbreast, Song Sparrow, Scarlet Tanager, Summer Redbird, Blue Heron, Humming Bird, Yellow Bird, Whippoorwill, Water Wagtail, Woodpecker,

Pigeon Woodpecker, Indigo Bird, Yellowthroat, Wilson's Thrush, Chickadee, Kingbird, Swallow, Cedar Bird, Cowbird, Martin, Veery, Vireo, Oriole, Blackbird, Fife Bird, Wren, Linnet, Pewee, Phœbe, Lark, Sandpiper, Chewink.

CLASS ACTIVITIES

1. What signers of this letter do you recognize by name? Be able to give a brief description which will show that you are thinking of the right bird.
2. Upon what basis can each bird you know make a claim for protection? Each member of the class may report upon one bird.
3. Read as many poems as you can from this list. What values do the poets see in birds?

Henley, William Ernest	"The Blackbird."
Bryant, William Cullen,	"Robert of Lincoln."
Wordsworth, William,	"To the Cuckoo."
Van Dyke, Henry,	"The Maryland Yellowthroat."
Drummond, William,	"To the Nightingale."
Richards, Laura E.,	"Bird Song."
Tennyson, Alfred,	"The Owl."
Allington, W. M.,	"Robin Redbreast."
Thaxter, Celia,	"The Sandpiper."
Shakespeare, William,	"Hark, Hark, the Lark."
Hogg, James,	"The Skylark."
Taylor, Joseph Russell,	"Blow Softly, Thrush."
Bryant, William Cullen,	"To a Waterfowl."
Peterson, Frederick,	"Wild Geese."

4. Most of the feathers worn on women's hats to-day are artificial. The practice of destroying birds of beautiful plumage has almost ceased. Which of these two facts is most probably the cause of the other fact?
5. Make a collection of pictures of birds in your locality and post the most beautiful on the bulletin board.

CLASS-LIBRARY READINGS

PROTECTING USEFUL BIRDS

1. "The Melancholy Crane," E. McGaffey, in *The Promise of Country Life*, 123–126.
2. "Some Insect Friends of Man," *Book of Knowledge*, 11 : 3255–3259.
3. "Our Animal Friends," *ibid.*, 2 : 499–507.
4. "Nature's Little Workmen," *ibid.*, 3 : 665–676.

GENERAL REVIEW OF SAVING AND CONSERVING

READING HABITS

(To be read and discussed by teacher and pupils together.)

In this unit we have had practice in all of the skills of study which we began to consider on p. 98. As you come to the page references below, turn back to the places, and notice how you employed the skills. We use all of these skills in studying any selection, but with each selection we use some skills more than others, depending on our purpose in studying.

1. Reading:
   - *a.* Fairly rapid reading to get the thought as a whole, pp. 57, 340.
   - *b.* Slow rereading for the mastery of details, pp. 57, 79.
   - *c.* Final scanning to fix in mind the author's plan, p. 57.
2. Assimilating:
   - *a.* Considering the major and minor importance of ideas, p. 208.
   - *b.* Putting the author's thought in your own words, p. 153.
   - *c.* Finding illustrations of your own for the author's thought, p. 248.
3. Preparing to recite:
   - *a.* Explaining important passages to yourself, p. 291.
   - *b.* Asking questions to bring out the whole meaning, p. 208.
   - *c.* Fixing in mind the framework of the thought, p. 258.

Examine the directions given at the beginning of the various selections and review all the reading suggestions not included above.

QUESTIONS AND PROBLEMS

1. Using the following table, answer these questions:
   - *a.* If you save twenty-five cents a week at 6 per cent interest, how much will you save in the four years of your high-school life?
   - *b.* If a family saves five dollars a month, what will be the total savings for five years?
   - *c.* How long would it take, if you save two dollars a month, to save five hundred dollars?

MONTHLY SAVINGS	1 YEAR	2 YEARS	3 YEARS	4 YEARS	5 YEARS
$1	$12.24	$24.98	$38.24	$52.03	$66.39
$2	24.48	49.96	76.48	104.06	132.77
$3	36.73	74.94	114.71	156.10	199.16
$4	48.97	99.93	152.95	208.13	265.55
$5	61.21	124.91	191.19	260.16	331.94
$10	122.42	249.81	382.38	520.32	663.87

MONTHLY SAVINGS	6 YEARS	7 YEARS	8 YEARS	9 YEARS	10 YEARS
$1	$81.32	$96.87	$113.04	$129.83	$147.35
$2	162.65	193.74	226.09	259.67	294.70
$3	243.97	290.61	339.13	389.50	442.05
$4	325.30	387.48	452.18	519.34	589.39
$5	406.62	484.35	565.22	649.17	736.74
$10	813.25	968.89	1,130.45	1,298.35	1,473.48

2. Making a Family Budget: A budget is an estimate of income and expenses. The expenses in a family budget should provide for food, clothing, housing, amusements, savings (including insurance), and gifts as charity. Suppose the income of a family of five (father, mother, three children) is $1,500, $2,500, $3,500 $4,500. How should the income be divided among the expenses? Inquire about costs at home and arrange your answers in this table. Give both dollars and percentages:

INCOME	FOOD	CLOTHING	HOUSING	AMUSEMENTS	SAVINGS	CHARITY
$1,500						
$2,500						
$3,500						
$4,500						

Compare tests; make a class list; get the criticism of a domestic-science teacher upon it; bring to class budgets you can find in newspapers and magazines.

ROUNDING OUT THE MEANING OF SAVING AND CONSERVING

1. *Book report day.* Go around the class, each reporting the following information about his book from the "Book List," p. 330: (*a*) name of the book; (*b*) name of the author; (*c*) his purpose in writing; (*d*) what one most important idea does he give about saving or conserving? (*e*) where in the book did you find the contribution? (*f*) of what selection in "Saving and Conserving" does it remind you?

2. *A story circle.* Each prepare to tell a true or an imaginary story in which the need of saving, the way of saving, and the result of saving shall be brought out. Take the saving of money or time or strength or health or material — or anything valuable. Prepare your story by thinking of three links in its chain, writing large links on a sheet of paper, and putting the topics of your paragraphs inside the links. Instead of telling the stories, just give the links in your chain.

3. From the twenty-six following proverbs copy all that apply to *saving* and *conserving* as we have considered them in this unit. Make a class list on the blackboard. If you have chosen one not approved by the class for the list, explain and defend your choice.

   1. A bird in the hand is worth two in the bush.
   2. A bird is known by its note, a man by his talk.
   3. A dwarf on a giant's shoulder sees farther of the two.
   4. A fool and his money are soon parted.
   5. A good name is rather to be chosen than great riches.
   6. A rolling stone gathers no moss.
   7. A still tongue makes a wise head.
   8. A wise son maketh a glad father.
   9. All is not gold that glisters.
   10. As you make your bed so you must lie in it.
   11. Birds of a feather flock together.
   12. Brave actions never need a trumpet.
   13. Go to the ant, thou sluggard; consider her ways and be wise.
   14. Fair words hurt not the mouth.
   15. Fine feathers do not make fine birds.
   16. Genius begins great works, labor alone finishes them.
   17. Good health is above wealth.
   18. Honesty is the best policy.
   19. If you wish a thing done, go; if not, send.

20. It is hard for an empty bag to stand upright.
21. A soft answer turneth away wrath; but grievous words stir up anger.
22. Lost time is never found again.
23. Never count your chickens before they are hatched.
24. Procrastination is the thief of time.
25. Waste not, want not.
26. Where there's a will there's a way.

Try to explain in one sentence the meaning of each of the five proverbs you think are strongest.

4. Appoint a committee of ten to read the Book of Proverbs in the Bible; each member of the committee to be responsible for a few chapters; copy all passages that deal with saving or thrift. When the lists are ready, choose from among all, the twenty-five proverbs which seem to be best for young people under twenty years of age.

5. *Safety first.* Have the class chairman call on as many as the time permits, asking each to explain briefly the truth of each of the following sentences about carelessness.

WHO AM I?

I am more powerful than the combined armies of the world.

I have destroyed more men than all the wars of the nations.

I am more deadly than bullets, and I have wrecked more homes than the mightiest of siege guns.

I steal, in the United States alone, over $300,000,000 each year.

I spare no one, and I find my victims among the rich and poor alike, the young and old, the strong and weak. Widows and orphans know me.

I loom up to such proportions that I cast my shadow over every field of labor, from the turning of the grindstone to the moving of every railroad train.

I massacre thousands upon thousands of wage-earners in a year.

I lurk in unseen places, and do most of my work silently. You are warned against me, but you heed not.

I am relentless.

I am everywhere, in the home, on the streets, in the factory, at railroad crossings, and on the sea.

I bring sickness, degradation, and death, and yet few seek to avoid me.

I destroy, crush, or maim; I give nothing, but take all.
I am your worst enemy.
I am CARELESSNESS!
Remedy — Practice SAFETY FIRST!

TOPICS FOR COMPOSITIONS

1. Fighting the potato-bug in our garden.
2. Some pests that injure trees.
3. Fighting dandelions.
4. Luther Burbank and his work.
5. How to tell the age of a tree.
6. Wild flowers in our neighborhood.
7. My pet extravagance.
8. Some *don'ts* on buying a dress.
9. The great trees of California.
10. Some things I know about trees.
11. One of our national parks.
12. A case of reckless driving.
13. An incident in the life of Dr. Grenfell.
14. Health work of the Boy Scouts.
15. How Uncle Sam reclaimed a desert.

QUESTIONS FOR DEBATE

1. *Resolved*, That the parents of every child who destroys school property should be compelled to pay for the damage.

2. *Resolved*, That playing a game is more enjoyable after necessary duties are done.

3. *Resolved*, That success in one line of school work helps pupils to be successful in other kinds of school work.

UNIT SIX

FINDING AND DOING ONE'S WORK

"PASSION OF LABOR DAILY HURLED
ON THE MIGHTY ANVILS OF THE WORLD."
—MORGAN.

[*See p.* 452]

THE DAY AND THE WORK

Let us be content in work
To do the thing we can, and not presume
To fret because it's little.

—ELIZABETH BARRETT BROWNING.

SUCCESS

Every successful life is marked by industry, by refinement, and by character. Of all the best men and women you know, not one is a loafer; not one is a boor; not one is a crook. All are faithful workers; all are fitted to enjoy some of the best things of life; all are clean, wholesome, and upright in mind and heart, and are unselfishly serving their fellow men.

School life is intended to develop these three qualities: it helps boys and girls to find suitable life work and fits them to do it, develops their appreciation of art, music, and literature, and cultivates the qualities of sterling character. After school life is over, education continues in the same ways. Growing on the job, filling each position capably while preparing for the next higher job, keeping the mind alert for a larger and better service — this and only this insures promotion. One grows in culture as he grows in workmanship. Listening to good music, looking at good pictures, reading good books increase one's powers of enjoyment. So, too, with character. Honesty, clean-mindedness, self-restraint, and other virtues are strengthened by each successful battle.

The only rule for success is to keep growing in industry, refinement, and character. Such growth is the chief business of youth. The value of every course in school, every recreation, every task outside of school is to be measured by the way it helps you grow in ability to work, in ability to enjoy, and in ability to practise self-control.

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CHOOSE A BOOK

1. Beveridge, Albert J., *The Young Man and the World.* Appleton.
   How to learn your own possibilities for success and how to start out in the direction for which you are fitted.

2. Coe, Fannie E., *Heroes of Every Day Life.* Ginn.
   Many stories of heroism: engineers; telegraphers; and life-savers.

3. Dearmer, Mabel, *A Child's Life of Christ.* Methuen & Co., London.
   The story of the greatest life ever lived on earth.

4. Deland, Ellen Douglas, *A Successful Venture.* Wilde.
   How four plucky girls and their younger brother earned their own living when misfortunes came.

5. Drysdale, William, *Helps for Ambitious Boys* and *Helps for Ambitious Girls.* Crowell.
   Life careers open to young men and young women and the qualities necessary for success in each career.

6. *Every Day Heroes; Retold from St. Nicholas.* Century.
   Was Walter Harvey a coward? Why did the fireman get a medal? How did a boy save a ship? How was Ulric saved? What was the grit of the chemist's helper? Read to find the answers.

7. Gore, John Rogers, *The Boyhood of Abraham Lincoln.* Bobbs Merrill.
   How Lincoln, a child of the wilderness, lived through his early childhood among the hills of Kentucky. How he won the nickname "Abe."

8. Holland, Rupert Sargent, *Historic Boyhoods* and *Historic Girlhoods.* Jacobs.
   Stories of the youth of great men and women.

9. Kipling, Rudyard, *Kim.* Doubleday.
   The son of a British soldier, brought up in India, has many adventures with a wandering teacher, and is trained for his life work in that land.

10. Morgan, James, *Theodore Roosevelt: the Boy and the Man.* Macmillan.
    Story of the foremost American of his day; his Southern mother and Northern father; his life in the West; his recreations and home life.

11. Miller, Mary Rogers, *Out-Door Work.* Doubleday.
    The best ways of earning money by out-of-door work.

12. Richardson, Anna Steese, *The Girl Who Earns Her Own Living.* Rickey.

How a girl just finishing the grammar school may become self-supporting.

13. Roosevelt, Theodore, and Lodge, Henry Cabot, *Hero Tales from History.* Century.

Sketches of famous men and of dramatic events in American history.

14. Sweetser, Kate Dickinson, *Ten American Girls from History.* Duffield.

Stories of Pocahontas, Mollie Pitcher, Clara Barton, Louisa M. Alcott, Clara Morris, and five other American girls.

15. Tappan, Eva March, *Heroes of Progress.* Houghton.

Stories of thirty men and women of our country whose success lay in the value of their service to us all, from John Audubon, lover of birds, to George W. Goethals, builder of the Panama Canal.

16. Trowbridge, John Townsend, *Jack Hazard and His Fortunes.* Winston.

Story of a canal boy who made his own way.

17. Wade, Mary H., *Real Americans.* Little, Brown.

Stories of six American leaders, who found their work, fitted themselves for it, and accomplished it: Roosevelt, Hoover, Wood, Burroughs, Clemens, and Hale.

18. Twombly, Frances D., and Dana, John C., *Romance of Labor.* Macmillan.

A collection of stories from great writers showing the human interest in agriculture, fishing, engineering, manufacture, herding, lumbering, mining, and science.

19. Twain, Mark (Samuel Clemens), *The Prince and the Pauper.* Harper.

By a strange accident a prince becomes a poor boy and a beggar boy becomes a king; both learn by interesting adventures the best qualities of manhood.

20. Weaver, Eli Witwer, *Building a Career.* Association Press.

This book has a chapter on the life work you might like to do.

21. Whitehead, Harold, *Your Job.* Biddle. Business Publications, New York.

How to choose a job; how to secure a job; how to hold a job; how to grow on a job. Seventeen qualities that a successful man or woman must possess.

A. FINDING ONE'S WORK

1. GOING AFTER A JOB

GARDNER HUNTING

What are you planning to do during the next summer vacation? If you are going to work for wages, perhaps you will find profit in this selection. Read it to see what characteristics are valuable in applying for a job.

"You don't *deserve* a job!"

The tall young man who had stood beside Billy Lanford in the office of the Carrigan Construction Company had followed him out and now stood at his elbow in the street, apparently with the sole purpose of delivering his decidedly personal comment.

Billy had just failed to secure the place of timekeeper for which he had applied. He had wanted the place very much indeed; he had made up his mind to earn money this summer, and the timekeeper at Carrigan's received ten dollars a week for what Billy had understood was only very moderate exertion. Now the sudden sharp criticism from a stranger sounded like an insult. Billy flared.

"Well, say!" he began.

"Don't get angry, now," interrupted the other, his bright brown eyes holding Billy's steadily. "You thought you could get that job when you went in there, didn't you?"

Billy wanted to answer sharply and escape. But the very unusualness of the attack aroused his curiosity.

"Of course I thought I could get it," he answered.

"Why?"

Billy found himself at a momentary loss for an answer.

"You told Andy Jaynes, the manager, that you'd had no experience, didn't you?"

"Yes, but ——"

"You didn't like the idea of getting to the gate at seven-thirty in the morning, did you?"

"I didn't say any such ——"

"No; you only looked it. You were surprised that you would have to stay till six-thirty at night, weren't you?"

Billy stopped answering. He was angry; but he felt the blood rise slowly in a hot wave over his cheeks and neck, and he found it hard to continue looking resentfully into the brown eyes.

"And you resented the idea that the timekeeper had to help in the shipping-room when he was off the gate, didn't you?"

Billy backed away against the fence. He wanted to shout aloud a denial of these charges; but he could not say a word. He knew that there was truth in every one of them.

"Jaynes knew how you felt," went on his new acquaintance. "Both he and I saw you were trying to cheat him."

"Cheat him!"

"Certainly. You had nothing to sell, had you? Neither experience, nor knowledge, nor willingness to work. All you wanted was to get his ten dollars a week and get it easy; you had no notion of being *worth* ten dollars a week, had you?"

The young man stood silent a moment, waiting. Billy Lanford was raging. He was angry enough to strike; but he knew that what had been said was true, and that fact held his tongue and hand.

"Do you know what you have done this morning?" asked his accuser. "You've started a reputation!"

Then the man turned away. Billy was left alone, standing with his back to the fence, his hands gripping the pickets behind him, his face and his heart burning as he had never known them to burn before.

A reprimand from an utter stranger! It was some minutes before Billy turned and walked slowly away down the street, hardly knowing where he meant to go. It had been bad enough to think of going home and reporting his failure. Now, he felt as if he had been whipped, and for something too downright disgraceful to report at all.

Who the man might be, or how he had happened to see and hear the application to Mr. Jaynes, Billy did not know. It was very strange that he should have gone out of his way to denounce an action that did not concern him. It was certainly very officious of him.

The town in which Billy lived was a large one. It seemed improbable that he would ever meet the stranger again. He would be unlikely ever again to see Mr. Jaynes of the Carrigan Construction Company. Billy had heard of the vacant position through a man his father knew in the Carrigan office. That man need hear only that Billy had not secured the place. What did the fellow mean when he said, "You've started a reputation!"?

"A reputation as a cheat!" Billy said half aloud involuntarily. "It's so. They saw; both of them saw through me. I'm a cheap little shirk, and I'm not worth any one's ten dollars a week. And they both know it."

The boy was stung to the quick. His conscience was stirred.

"I must go and get a place to work somewhere, now," he thought. "I must! I've got to *prove* that chap wrong."

He hurried on, thinking, planning, squirming under the memory of the rebuke he had received. Then it occurred to him that the criticism, if not merely an ill-natured affront, must have had a friendly impulse.

"He told me where my mistake was," he said to himself. "What did he do it for?"

As he remembered it now, there appeared to have been no contempt in the young man's tone. There had been only a sharp incisiveness and an earnest effort to convince.

Billy's ideas grew clearer. That last phrase about reputation — he must go back and try to change the impression he had created at Carrigan's.

He was two miles from the construction company's offices when he reached this conclusion. He remembered Andrew Jaynes's shrewd gaze, and shrank from the prospect of facing it again.

But an hour and a half after the talk at the picket fence Billy Lanford stood again at the railing beside Mr. Jaynes's desk.

"I came back, Mr. Jaynes," he said.

The manager's gray eyes narrowed in puzzled fashion for an instant; then he asked:

"What for?"

"Because I — I'm ashamed of having applied as I did — of thinking only about the salary, and not about the work. I — a man who heard me talk to you — told me I showed what I was thinking of, by that. And I came back to square myself."

Mr. Jaynes leaned back in his chair. "And you came back here to tell me this?"

"Yes, sir." Billy flushed.

"The timekeeper's job was filled this morning."

"I suppose so."

"Then why do you suppose I care anything about you or your application?"

Billy felt rebuffed. "I haven't any idea you do," he answered. "But I'd like you to know that I did have a decent idea of earning the money I want to get."

Mr. Jaynes wrote a few words on a slip of paper and then pointed to a glass door across the office.

"Take this to Mr. Walter Carrigan, in that room," he said.

Billy took the slip and obeyed the direction. He knocked

at the glass door and opened it. Then he stood still with amazement. The man standing by a window was the man who had talked to him in the street.

"Are you — are you Mr. Carrigan?" stammered Billy.

"I'm Mr. Carrigan, junior," replied the young man.

"I've come back," said Billy.

"I knew you would if you had any self-respect. That's why I said what I did to you. I thought you looked like a boy who only needed waking up."

Billy stood silent a moment. Then he said, "Mr. Carrigan, I know the timekeeper's job is filled, but I want a chance to — to show you ——"

Mr. Carrigan smiled, as Billy hesitated and stopped. "I am quite sure you do," he answered. "That's why you came back. And I think I can find a place for a boy who feels that way."

CLASS ACTIVITIES

1. What qualities in Billy led the younger Carrigan to employ him? Was Carrigan a wise employer? Explain. Read the paragraph which contains Carrigan's strongest criticism of Billy.
2. Give examples of some good reputations started by boys and girls while they were in your school. What had they to sell? What qualities that Billy lacked have you to sell?
3. Did Billy expect to get the job when he went back? Read parts to support your answer.
4. What traits would have attracted an employer in Ernest of "The Great Stone Face," p. 401, *Book One;* Abraham Lincoln; George Washington; Sheard's "Postmen," p. 248; Henry Monk; Gannet; Cyrus McCormick; Michael Pupin; Benjamin Franklin?
5. *Volunteer work.* Applicant's list; make a place in your note-book for "What an applicant should remember." Put down all the suggestions that you get during the next few weeks; you should have at least three entries from the preceding selections.

ADDITIONAL READINGS. — 1. "Finding a Life Work," H. Munsterberg, in *McClure's Magazine,* 32 : 389–395. 2. "The Ripe Peach," R. S. Spears, in *Scribner's Magazine,* 71 : 163–173. 3. "My Vocation," G. S. Drury, in *The Thoughts of Youth,* 168–178. 4. "Finding a Job," E. W. Burgess, in *Lessons in Community and National Life,* B-8.

2. TO–DAY

THOMAS CARLYLE

Can you see a reason for including this poem after the preceding selection?

So here hath been dawning
  Another blue Day:
Think, wilt thou let it
  Slip useless away?

Out of Eternity
  This new Day is born;
Into Eternity,
  At night, will return.

Behold it aforetime
  No eye ever did:
So soon it forever
  From all eyes is hid.

Here hath been dawning
  Another blue Day:
Think, wilt thou let it
  Slip useless away?

3. KATHERINE

MINNIE J. REYNOLDS

Read the story quickly. When you have finished, suggest another title which will show the fitness of this story to be in "Finding One's Work."

Katherine seemed to be a sort of leader among her playmates. I used to see them in groups clustered around her, sometimes perfectly silent while she did the talking, again all talking at once, apparently excited. Sometimes she seemed

to be giving orders and laying out parts for each one. Again there seemed to be rebellion and violent arguments. But Katherine could talk them all down; or, if she couldn't, her last resort was to stalk off towards home without a word. Then they would go chasing after her, calling: "Aw, now, Kit, don't go off mad. Aw, now, Kit, c'mon, we'll do it your way." They would stand any meanness from her if she would only stay with them.

She had them play Shakespeare. Katherine read Shakespeare before she was twelve; sat up in bed to read it nights, to her father's great wrath. . . . I don't know how she got the idea that Shakespeare was to be played. She had never seen a play or heard of one, so far as I know. Anyway, she staged a good deal of Shakespeare one year in an empty barn.

They played "Hamlet" and "Julius Cæsar" in this way, and some others — I forget now. They came to grief over "Hamlet." The butcher's son was cast for the title rôle. At one place Katherine had him say: "The blood that drippeth from this dagger in my hand — " At this moment, as he scowled fiercely at the dagger, a boy in the audience piped out: "It's a calf's!" Forgetting all about his part, the butcher's boy shook his dagger at the interpolator and shrieked: "I know who you are that said that, and I'll lick you to-morrow, smarty ape."

The audience went into fits and the show broke up in disorder. But afterwards Johnny Bream and the butcher's boy fought, and real blood dripped from real noses. Their mothers inquired into matters, and then told around that "that Kitty Dale was at the bottom of all the mischief done in this village."

I never saw the Shakespeare plays. It was the teacher told me about it. She stopped me on the street and talked twenty minutes about what a remarkable child Katherine was.

"She's a genius! You ought to make a dramatic artist of her," she said.

"I'd like to make a dish-washing artist of her," said I.

Katherine was fourteen when we moved to Wyburn. She was entered in the eighth grade in the middle of the winter. In June this grade would be promoted to the high school if they passed their examinations. It was my first contact with a real graded school. Near the end of the term the principal came to see me. He was a conscientious young man, very solemn and nervous.

"Mrs. Dale," said he, "your daughter doesn't know the multiplication table."

I was silent. It was a fresh shame put on me by Katherine; not to know the multiplication table at fourteen!

"She knows the 2's," said he desperately, "but she doesn't know the 3's, or anything beyond except the 5's and 10's. She doesn't know fractions, she doesn't know long division, she can't multiply and carry, she can't subtract and borrow. She doesn't know the multiplication table." He came back to that with a sort of wail. "Her arithmetic paper in examination was a blank," said he. "She doesn't know anything about arithmetic. There's a blank in her mind where that ought to be. And she's got to go into the high school in September. How can I admit her to the high school when she doesn't know the multiplication table?

"Couldn't you, Mrs. Dale," said he hesitatingly, "couldn't you teach her the multiplication table this summer, so she could go on with her class in the fall? You've taught her so many things that are not taught in school that I'm sure you can."

"We've paid school taxes a good many years," said I, grimly; "it seems a pity if I've got to do the teaching too. But I'll see what I can do."

"Do, Mrs. Dale, do," said he eagerly, grabbing his hat. "Your daughter is such a genius."

There was that same word again. A genius. Well, if she was a genius, she could learn the multiplication table. The day after school was out I took her to her room, put the key

in the outside of the lock, and talked to her as I never had before.

"You'll learn that multiplication table or you won't leave this room this summer," said I. "You'll learn it so you can say it upside down and hindside too. Don't tell me that a girl that can learn Shakespeare and 'Ivry' can't learn the multiplication table — a simple thing like that. I'm not going to have any more nonsense. You've disgraced this family long enough."

The expense of keeping Rob in Harvard bore heavily on us. In the spring of the year when she was sixteen Katherine came in one day and said in an offhand way: "I've got the district school at Knapp's Station. Two dollars a week and board around. The school keeps through May, June, and July. I can catch up with my class in August and go on with them in September. Rob's costing so much, I thought maybe that would help out."

Now that was very thoughtful of Katherine. Not one of the boys had been so thoughtful. But it spoiled it all to have her go off and get the school without saying a word to any one that way. I couldn't speak for a minute. Then I said: "How did you get the school?"

"Old man Knapp," she said laconically. "He drives in every Saturday with a load of produce. I've known him ever since we moved to Wyburn. He's a funny old codger."

She gave that curious little grin of hers.

"How did you get a certificate to teach school?" said I.

"I took the county examinations when they were held two months ago in the court house."

"Very well, Katherine," said I; "I hope you'll get through all right. . . ."

At the end of July old man Knapp brought her home in his farm-wagon. It was just like Katherine to ride through the streets of Wyburn in a lumber wagon. When she went upstairs, I asked him how she had got on. "Haw, haw, haw!" said he, yawping with laughter. "I dunno how much they learned, but ye never see a passel o' kids so dead set on goin'

t' skule. Ye cuddn't keep 'em to hum with a club. And that there last day of skule, ye never see sech a gang as turned out. The hull countryside from 'way over Massena way come to them there closin' exercises. They waz hangin' out o' the winders. Tell ye, Mis' Dale, that there girl o' yourn's a caution, she is. Ye can see the steam a-comin' outen her boot heels when she walks."

Katherine had her whole $24 in her pocket. She came and handed it out to me without a word, but it seemed to me there was a kind of wistful look in her eyes.

"Katherine," said I, "you've been a good, thoughtful girl to do this. You've earned your own board for three months, and this $24 will buy your coat and dress for winter. That will help out your poor father wonderfully. Mr. Knapp speaks well of you, and I am glad you have done so well with your first school." The tears sprang to her eyes and rolled down her thin, dark cheeks. I tried to put my arms around her, but she slipped away and ran out.

During Katherine's last year in the high school an inter-high-school oratorical contest was arranged by the Board of State Regents at Albany. Each high school was to elect its orator, subject to the veto of the faculty. Then the high schools of each county were to hold contests. The winner in each county was to go to Albany for a grand State contest. The State winner was to have his expenses to Albany paid, and receive one year's tuition in any institution of higher learning he wished to name, and the school that sent him was to receive a gold medal.

The Wyburn High School instantly elected Katherine with a whoop. I was not surprised at this, nor was I surprised when she won the county contest. She could always speak pieces, and it was never any use or value that I could see. We were counting every penny to keep Rob in Harvard, and didn't know which way to turn to squeeze out her expenses to Albany. But we couldn't refuse her, and I think she would have walked to Albany if we had.

I wasn't surprised when she won, hands down. But, I own,

I was surprised at the fuss they made over it. The New York papers had pieces about it, with her picture, that they took themselves. Wyburn went wild. To think that little Wyburn, 'way up in St. Lawrence County, had taken the medal away from Rochester and Buffalo and New York itself. Mr. Dale's office was full of business men who went to congratulate him. Strangers stopped me on the street to speak about it. The whole high school and the whole town met her at the depot when she came back.

Then the town had to hear the oration that won the prize. The high school auditorium wasn't big enough. The Opera House was given to them free, and the whole town turned out. All the trustees and ministers and teachers sat on the platform, and Mr. Dale and I were invited to sit there too; but we wanted to sit down in front where we could see her. She gave them the Albany oration, but that wasn't enough. She must give something else. . . . She gave — what do you think? Jean Poussin.

Jean Poussin was a shiftless, guzzling old Frenchman who had hung around Maple Hollow for years. He talked incessantly. His tongue was never still one minute.

Now I had never thought Jean Poussin was funny. I had just thought he was an old nuisance. But when Katherine began to talk exactly as he had, and tell those long, rambling stories of his precisely as he had, with the very accent, suddenly I saw that Jean Poussin was excruciatingly funny, and always had been.

Then it changed, and I began to feel sober and sad. Jean Poussin's little girl dies. Poor Jean Poussin! Was it like that? And I had never gone near. Never stepped inside the house. But that girl of mine had gone and heard it all, and it had lain in her mind like a strain of exquisite music, to come out years after and wring our hard hearts. I thought about my first little boy, that died before Rob was born, so many years ago, and of the little grave all alone down in the churchyard at Maple Hollow, and of how we must all go

there, one by one, and lie down beside him. And I guess every grown-up person in the room thought of somebody he had lost. The tears were raining down their faces and the house was still as death, only now and then a stifled sob. And that girl of mine stood up there in the little ten-cent white lawn that I made her, with her beautiful velvet voice that filled every corner of the Opera House, and just played on our heart-strings as some great player would play on a violin. Interpreter of life. That's what you were, my girl.

Well, for the first time I saw that I had a daughter to be proud of. I realized that she had a beautiful and extraordinary accomplishment. I couldn't see anything else in it. It would make her attractive and sought for, but it had no connection with the practical side of life. My idea was that Katherine would teach school for a few years and then marry. That seemed the natural and logical course of events.

But no. Katherine coolly informed us that she had chosen a year's tuition at the Boston School of Oratory, and would leave the first of September. Both of us thought it was a wild idea. The day had gone by when we could be sharp or authoritative with Katherine. But we explained it to her, kindly.

"If you must go to school any more, Katherine," said I, "why not go to the State Normal at Potsdam? That would give you a certificate to teach anywhere in the State, and you might even get into the New York City schools. But you can teach right here at Wyburn and live at home, without any more expense for schooling; and you have a good education already. . . ."

She rose and walked to the door. There she paused and looked back. "You needn't send me," said she; "I'll go myself."

And she did. She went calmly on and made her preparations and went to Boston that fall.

And where do you think she got her money? Old man Knapp lent it to her. Did you ever? Lent her five hundred

dollars on her personal note, and he wouldn't have lent a cent to any man in Wyburn without demanding all the property he had in the world as security.

Well, Katherine never again asked us for any money. And two years later, when Mr. Dale died, it was Katherine, of all the children, that gave me a home. I had only my furniture, the old house at Maple Hollow, which brought me only ten dollars a month rent, and a few hundreds in cash.

"Come, mother, come to Boston. I want you; I need you." She was at it day and night.

I made my next to the last appeal to her.

"If you will go back to Maple Hollow with me," said I, "we can live in the old house. It's mine, and will make a home for us as long as we live. You can always teach in the Maple Hollow school, and I can get summer boarders. We won't have much, but we never need fear want as long as we live. We will be perfectly safe."

She was a stone to all my pleading, and finally, against all my better judgment, I went to Boston.

With old man Knapp's money she had rented and furnished a flat, and let rooms to girl students. By working mornings and nights out of school she managed to pay her rent and feed herself. For her clothes and Mr. Knapp's interest, which she always paid, she depended on chance readings, for which she was paid from three to ten dollars. She slept on a lounge in her kitchen, and had no other place to wash and dress herself. Imagine that for a girl brought up like Katherine!

The last appeal I ever made to Katherine was when she was graduated from the school. Ruelstein, the head of the great bureau of lectures and amusement features, wanted her to sign with him for five years at twenty-five dollars a week. I thought our fortunes were made. I had never known a woman in my life who made twenty-five dollars a week. And to think of having it sure for the next five years! She sat silent and preoccupied. When I finally grasped the fact that she didn't mean to take it, I turned white.

"If Ruelstein is willing to sign me for five years," she said, "and run all risks of my failure and non-employment, it's because he's pretty sure of making a big profit off me. Why shouldn't I make that profit myself? Why should I make profits for Ruelstein?"

She went and told Ruelstein that she was thinking of starting a club woman's lecture bureau, and that some rich Boston club women were ready to back her. Eventually she signed with him for one year at fifty dollars a week.

Well, it isn't necessary to give each year after that. A thousand dollars a week for an average of twenty weeks in the year — Katherine made that for years. I travelled with her in those days. I made a home for her wherever she stopped. I took care of her like a child. She liked to have me. She always said nobody else made her comfortable.

I took care of her clothes. And *such* clothes! How could I ever have thought Katherine a homely child? She is the most glorious, elegant, beautiful creature. That thin, sharp profile of hers is like a cameo; her hair a mass of dusky night; her dark eyes shine like stars; and the trailing folds of lustrous satin sweep downward from her bust, held there by a great flashing diamond sunburst or some old Oriental clasp of beaten gold, with her lovely head rising above like one of those colored Italian statues on a pedestal.

I have seen three thousand people swayed by her words as the wind sways the ripe wheat in August; moved till the fountains of mirth gush forth in Niagaras of laughter; moved till the unspoken depths of the human heart are stirred, and each man's private grief reaches up to clutch his throat with icy fingers.

"I don't seem to see myself an actress. I just want to speak my pieces."

She has spoken her pieces around the world.

She adds constantly. Life is her school, and the human race her teachers. She gets materials from street-cars, from

store-counters, from mining camps, and from great city hotels.

Her college-boy pieces — she got those from Rob and his friends when he was in Harvard. She comes out as a college boy; not a ballet girl dressed up for a boy, but an actual, sure-enough young dude of a junior. When she gave that series at Harvard, the students nearly had convulsions. She takes off the President of the United States. She learned the Southern darky when she was down there — went and sat around in their cabins, just as she used to with the Indians and gypsies.

But for the great staple, basic fabric of her evenings, where do you think she goes? Back to Maple Hollow. You know her children's pieces; they're all patented — I mean copyrighted. And they're nothing but the Maple Hollow children. I can recognize the village children, the French children, her teachers, old man Knapp, her brothers, and me, her own mother. The favorite of them all is the Shakespeare in the barn. Her version of the plays in itself almost kills people that know Shakespeare, and she finishes with that calf's blood story with the butcher boy's face — the very face of a little boy convulsed with rage. How Katherine can make such faces I don't know.

Finally came her marriage. When I was young, a girl was an old maid at twenty-five and the fact was flung in her face. Katherine had been an old maid a long time by my count, but some way the name fell flat. I thought a good deal about her marrying at first. It made my blood run cold to see how Katherine refused men — counts and princes and smart Americans. Then, after a while, I didn't think any more about it. What man was big enough for Katherine, and what one house could hold her?

Suddenly she did it, after refusing eleven men, to my certain knowledge. And Randolph is certainly a prince among men; he worships the ground she walks on; and, though he isn't in the multi-billionaire class, he could buy the whole of

Wyburn and forget what he spent the money for. It was through him and his friends that Rob built up the splendid practice he has.

They have two lovely children. The girl is like him, but the boy is just such another long-legged, stramming, obstinate thing as Katherine was. But do you think I worry, after bringing up Katherine?

Katherine still appears several weeks each year. But she gives it all away. She kept that last shirt-waist girls' strike going. She financed the suffrage campaign in Montana. She gave Maple Hollow a beautiful public library; and she gave one to Knapp Station, and named it after old man Knapp.

We had a heart-to-heart talk once, Katherine and I. We both cried, and in those tears the last trace of bitterness was washed away. I asked her to forgive me for all the years I was so hard on her. And she said: "Why, mother, you were the best mother any child ever had, and I was a rotten mean kid. I thank God every day of my life that you didn't die, like father, before I had time to make it up to you."

One day I sat mending a pair of her silk stockings. She would toss them away the first hole that came in them, but I couldn't bear to see such waste.

"Ah, my dear," said I, "after all, you wouldn't have made a very good poor man's wife, would you?"

"I don't see why," said she, promptly. "I think I would have made a first-class poor man's wife. I would make twenty thousand dollars and set him up in business."

And that's exactly what she would do.

— *Adapted.*

CLASS ACTIVITIES

1. Explain whether Katherine's successes excused her for the weaknesses her mother describes. Was it Katherine's fault that the boys fought after the dramatization of "Hamlet"?
2. In what ways did Katherine show her resolution to succeed? Name opportunities she made for herself. What was her greatest success? How early did she begin to find her life work? What does her story suggest about starting in life?

3. Find evidence on p. 400 that good listeners add something to what they hear. Explain how this is true of readers, using an example.
4. The characteristics of a good short story:
   a. It must answer the question *who:* it has *characters.*
   b. It must answer the question *what:* it narrates *events* or actions, omitting all useless details.
   c. It must answer the question *where:* it *locates* the events or scenes.
   d. It must answer the question *why:* it contains a *purpose* for the events.

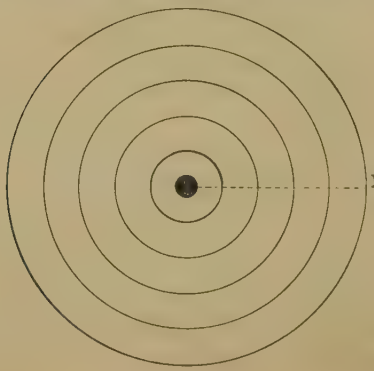
The value of all stories may be estimated by these four tests. Some stories contain all of them; others, while paying attention to all four, lay special stress upon one, or perhaps two of the features named. Is "Katherine" a *character* story, an *events* story, a *scene* story, or a *moral* story? Is the interest chiefly in plot, in character, in setting, in mood, in theme? Explain.

4. ACRES OF DIAMONDS

RUSSELL H. CONWELL

This famous address has been delivered thousands of times in various parts of the world. It has brought Mr. Conwell more than a million dollars, every cent of which he has given to help young men secure an education.

The address is built on what we may call "the target plan," and may be represented in this way. The bull's-eye in the centre of the target may represent Mr. Conwell's central idea. The address itself is made



up of five parts, all of which develop or support the central idea in exactly the same way; each in a sense draws a circle around the bull's-eye.

A target is used by archers, who stand at a distance and try to shoot their arrows into the target, endeavoring, of course, to hit the bull's-eye. Each arrow lodging in the bull's-eye counts 20, each in the innermost circle counts 15, and so on, the scores lessening in value as the arrows lodge toward the outer edge of the target.

As you read the selection, determine whether the examples used by Mr. Conwell are arranged in the order of decreasing value in supporting his central idea.

When going down the Tigris and Euphrates Rivers many years ago I found myself under the direction of an old Arab guide whom we hired up at Bagdad. He thought that it was not only his duty to guide us down those rivers but also to entertain us with stories curious and weird, ancient and modern, strange and familiar. Many of them I have forgotten, and I am glad I have, but there is one I shall never forget.

Said he, "I will tell you a story now which I reserve for my particular friends." When he emphasized the words "particular friends," I listened, and I have ever been glad I did. I really feel devoutly thankful that there are 1,674 young men who have been carried through college by this lecture who are also glad that I did listen.

The old guide told me that there once lived not far from the River Indus an ancient Persian by the name of Ali Hafed. He said that Ali Hafed owned a very large farm; that he had orchards, grain fields, and gardens; that he had money at interest and was a wealthy and contented man. He was contented because he was wealthy, and wealthy because he was contented. One day there visited that old Persian farmer one of those ancient Buddhist priests, one of the wise men of the East. He sat down by the fire and told the old farmer how this world of ours was made. He said that this world was once a mere bank of fog, and that the Almighty thrust his finger into this bank of fog and began slowly to move his finger around, increasing the speed, until at last he whirled

this bank of fog into a solid ball of fire. Then it went rolling through the universe, burning its way through other banks of fog, and condensed the moisture without until it fell in floods of rain upon its hot surface and cooled the outward crust. Then the internal fires bursting outward through the crust threw up the mountains and hills, the valleys, the plains and prairies, of this wonderful world of ours. If this internal molten mass came bursting out and cooled very quickly it became granite; less quickly, gold; and, after gold, diamonds were made.

Said the old priest, "A diamond is a congealed drop of sunlight." Now that is literally scientifically true — that a diamond is an actual deposit of carbon from the sun. The old priest told Ali Hafed that if he had one diamond the size of his thumb he could purchase the county, and if he had a mine of diamonds he could place his children upon thrones through the influence of their great wealth.

Ali Hafed heard all about diamonds, how much they were worth, and went to his bed that night a poor man. He had not lost anything, but he was poor because he was discontented, and discontented because he feared he was poor. He said, "I want a mine of diamonds," and he lay awake all night.

Early in the morning he sought out the priest. "Will you tell me where I can find diamonds?"

"Diamonds! What do you want with diamonds?"

"Why, I wish to be immensely rich."

"Well, then, go along and find them. That is all you have to do; go and find them, and then you have them."

"But I don't know where to go."

"Well, if you will find a river that runs through white sands, between high mountains, in those white sands you will always find diamonds."

"I don't believe there is any such river."

"Oh, yes, there are plenty of them. All you have to do is to go and find them, and then you have them."

Said Ali Hafed, "I will go."

So he sold his farm, collected his money, left his family in charge of a neighbor, and away he went in search of diamonds. He began his search, very properly to my mind, at the Mountains of the Moon. Afterward he came around into Palestine; then wandered on into Europe; and at last, when his money was all spent and he was in rags, wretchedness, and poverty, he stood on the shore of the bay at Barcelona, in Spain, when a great tidal wave came rolling in between the pillars of Hercules, and the poor, afflicted, suffering, dying man could not resist the awful temptation to cast himself into that incoming tide, and he sank beneath its foaming crest, never to rise in this life again.

The man who purchased Ali Hafed's farm, one day led his camel into the garden to drink, and as the camel put its nose into the shallow water of that garden brook, Ali Hafed's successor noticed a curious flash of light from the white sands of the stream. He pulled out a black stone having an eye of light reflecting all the hues of the rainbow. He took the pebble into the house and put it on the mantel which covers the central fires, and forgot all about it.

A few days later this same old priest came in to visit Ali Hafed's successor. The moment he opened the drawing-room door he saw the flash of light on the mantel; he rushed up to it and shouted: "Here is a diamond! Has Ali Hafed returned?"

"Oh, no, Ali Hafed has not returned, and that is not a diamond. That is nothing but a stone we found right out here in our own garden."

"But," said the priest, "I tell you I know a diamond when I see it. I know positively that is a diamond."

Then together they rushed out into the old garden and stirred up the white sands with their fingers, and lo! there came up other more beautiful and valuable gems than the first. "Thus," said the guide to me — and, friends, it is historically true — "was discovered the diamond mine of Gol-

conda, the most magnificent diamond mine in all the history of mankind, excelling the Kimberley itself. The Kohinoor and the Orloff, of the crown jewels of England and Russia, the largest on earth, came from that mine."

When that old Arab guide told me the second chapter of his story, he then took off his Turkish cap and swung it around in the air again to get my attention to the moral. As he swung his hat he said to me: "Had Ali Hafed remained at home and dug in his own garden, instead of wretchedness, starvation, and death by suicide in a strange land he would have had 'acres of diamonds.' For every acre of that old farm, yes, every shovelful, afterward revealed gems which since have decorated the crowns of monarchs."

When he had added the moral to his story I saw why he reserved it for his "particular friends." But I did not tell him I could see it. It was that mean old Arab's way of going around a thing like a lawyer, to say indirectly what he did not dare say directly, that "in his private opinion there was a certain young man then traveling down the Tigris River who might better be at home in America." I did not tell him I could see that, but I told him his story reminded me of one, and I think I will tell it to you.

I told him of a man out in California in 1847 who owned a ranch. He heard they had discovered gold in southern California, and so with a passion for gold he sold his ranch to Colonel Sutter, and away he went, never to come back. Colonel Sutter put a mill upon a stream that ran through that ranch, and one day his little girl brought some wet sand from the raceway into their home and sifted it through her fingers before the fire, and in that falling sand a visitor saw the first shining scales of real gold that were ever discovered in California. The man who had owned that ranch wanted gold, and he could have secured it for the mere taking. Indeed, thirty-eight millions of dollars have been taken out of a very few acres since then. About eight years ago I delivered this lecture in a city that stands on that farm, and they

told me that a one-third owner for years and years had been getting one hundred and twenty dollars in gold every fifteen minutes, sleeping or waking, without taxation. You and I would enjoy an income like that — if we didn't have to pay an income tax.

But a better illustration really than that occurred here at home. There was a man living in Pennsylvania, not unlike some Pennsylvanians you have seen, who owned a farm, and sold it. But before he sold it he decided to secure employment collecting coal oil for his cousin, who was in business in Canada, where they first discovered oil on this continent. They dipped it from the running streams at that early time.

So this Pennsylvania farmer wrote to his cousin asking for employment. You see, friends, this farmer was not altogether a foolish man. No, he was not. He did not leave his farm until he had something else to do. Of all the simpletons the stars shine on I don't know of a worse one than the man who leaves one job before he has got another. When he wrote to his cousin for employment, his cousin replied: "I cannot engage you because you know nothing about the oil business."

Well, then the old farmer said, "I will know," and with most commendable zeal he set himself at the study of the whole subject. He began away back at the second day of God's creation, when this world was covered thick and deep with that rich vegetation which since has turned to the primitive beds of coal. He studied the subject until he found that the drainings really of those rich beds of coal furnished coal oil that was worth pumping, and then he found how it came up with the living springs. He studied until he knew what it looked like, smelled like, tasted like, and how to refine it. Now said he in his letter to his cousin, "I understand the oil business." His cousin answered, "All right; come on."

So he sold his farm, according to the county record, for $833 (even money, "no cents"). He had scarcely gone from that place before the man who purchased the spot went out to arrange for the watering of cattle. He found the previous

owner had gone out years before and put a plank across the brook back of the barn, edgewise into the surface of the water just a few inches. The purpose of that plank at the sharp angle across the brook was to throw over to the other bank a dreadful-looking scum through which the cattle would not put their noses. But with that plank there to throw it all over to one side, the cattle would drink below, and thus that man who had gone to Canada had been himself damming back for twenty-three years a flood of coal oil which the State geologists of Pennsylvania declared to us ten years later was even then worth a hundred millions of dollars to our State, and four years ago our geologist declared the discovery to be worth to our State a thousand millions of dollars. The man who owned that territory on which the city of Titusville now stands, and those Pleasantville valleys, had studied the subject from the second day of God's creation clear down to the present time. He had studied it until he knew all about it, and yet he is said to have sold the whole of it for $833, and again I say, "no sense."

The best illustration I ever heard was of John Jacob Astor. You know that he made the money of the Astor family when he lived in New York. He came across the sea in debt for his fare. But that poor boy with nothing in his pocket made the fortune of the Astor family on one principle. Some young man here to-night will say: "Well, they could make those fortunes over in New York, but they could not do it in Philadelphia!" My friends, did you ever read that wonderful book of Jacob Riis, wherein is given his statistical account of the records taken in 1889 of 107 millionaires of New York. If you read the account, you will see that out of 107 millionaires, only seven made their money in New York. Out of the 107 millionaires worth ten million dollars in real estate then, 67 of them made their money in towns of less than 3,500 inhabitants. It makes not so much difference where you are as who you are. But if you cannot get rich in Philadelphia you certainly cannot do it in New York.

Now John Jacob Astor illustrated what can be done anywhere. He had a mortgage once on a millinery store, and they could not sell bonnets enough to pay the interest on his money. So he foreclosed the mortgage, took possession of the store, and went into partnership with the very same people, in the same store, with the same capital. He did not give them a dollar of capital. They had to sell goods to get any money. Then he left them alone in the store just as they had been before, and he went out and sat down on a bench in the park in the shade.

What was John Jacob Astor doing out there, and in partnership with people who had failed on his own hands? He had the most important and, to my mind, the most pleasant part of that partnership on his hands. For as Astor sat on the bench he was watching the ladies as they went by, and where is the man who would not get rich at that business? As he sat on the bench, if a lady passed him with her shoulders back and head up, and looked straight to the front as if she did not care if all the world did gaze on her, then he studied her bonnet, and by the time it was out of sight he knew the shape of the frame, the color of the trimmings, and the crinklings in the feather. I sometimes try to describe a bonnet, but not always. I would not try to describe a modern bonnet. Where is the man that could describe one — this aggregation of all sorts of driftwood stuck on the back of the head, or the side of the neck, like a rooster with only one tail feather left?

But in John Jacob Astor's day there was some art about the millinery business, and he went to the millinery store and said to them: "Now put into the show window just such a bonnet as I describe to you, because I have already seen a lady who likes such a bonnet. Don't make up any more until I come back."

Then he went out and sat down again, and another lady passed him, of a different form, of different complexion, with a different shape and color of bonnet. "Now," said he, "put

such a bonnet as that in the show window." He did not fill his show window up-town with a lot of hats and bonnets to drive people away, and then sit on the back stairs and bawl because people went to Wanamaker's to trade. He did not have a hat or a bonnet in the show window that some lady did not like before it was made up. The tide of custom immediately began to turn in, and that was the foundation of the greatest store in New York in that line. It still exists as one of three stores. Its fortune was made by John Jacob Astor, after the owners had failed in business, not by giving them any more money, but by finding out what the ladies liked for bonnets before wasting any material in making them up. I tell you if a man could foresee the millinery business he could foresee anything under heaven!

There was a poor man out of work living in Hingham, Massachusetts. He lounged around the house until one day his wife told him to get out and work, and as he lived in Massachusetts he obeyed his wife. He went out and sat down on the shore of the bay and whittled a soaked shingle into a wooden chain. His children that evening quarreled over it, and he whittled another one to keep peace. While he was whittling the second one a neighbor came in and said: "Why don't you whittle toys and sell them? You could make money at that."

"Oh," he said, "I would not know what to make."

"Why don't you ask your own children, right here in your own house, what to make?"

"What is the use of trying that?" said the carpenter. "My children are different from other people's children." But he acted upon the hint, and the next morning when Mary came down the stairway he asked, "What do you want for a toy?" She began to tell him she would like a doll's bed, a doll's washstand, a doll's carriage, a little doll's umbrella, and went on with a list of things that would take him a lifetime to supply. So consulting his own children, in his own house, he took the firewood (for he had no money to buy lumber) and whittled

those strong, unpainted Hingham tovs that were for so many years known all over the world.

That man began to make toys for his own children, and then made copies and sold them through the boot-and-shoe store next door. He began to make a little money, and then a little more. That man is worth a hundred millions of dollars to-day, and has been only thirty-four years making it on that one principle — that one must judge that what his own children like at home other people's children would like in their homes, too; to judge the human heart by oneself, by one's wife, or by one's children. It is the royal road to success in manufacturing. "Oh," but you say, "didn't he have any capital?" Yes, a penknife, but I don't know that he had paid for that.

CLASS ACTIVITIES

1. Make a large target on the blackboard. Write in the names of Conwell's examples in the order of their increasing importance.
2. Read the paragraph which contains the best statement of the bull's-eye idea. Find sentences in each of the other parts which repeat the central idea.
3. Read the Foreword in Unit III, *Book One*, p. 180. Does "Acres of Diamonds" support the thought there expressed?
4. Name industries of your community which have grown from small beginnings to their present size. Mention causes for this growth. What new industries are starting?
5. How may the central thought of "Acres of Diamonds" apply to your school life?
6. *Volunteer work.* Find out more about Jacob Riis; discovery of gold in California; John Jacob Astor; toy makers of Massachusetts; diamond mining in Africa.
7. *Volunteer work.* Make a plan for a floor talk on "Why it pays to prepare my lessons thoroughly." Draw a large target, and think of four examples from your school experience; arrange them in the order of their importance, putting the most important nearest the bull's-eye.
8. Topics for discussion from "Acres of Diamonds":
   a. "He profits most who serves best."
   b. "First know the demand."
   c. "Invest yourself where you are most needed."

d. "I understand the oil business."
e. "Judge the human heart by oneself."
f. "What is the use of trying that?"

CLASS-LIBRARY READINGS

FINDING ONE'S WORK

1. "Vocations," K. L. Butterfield, in *Opportunities of To-day*, 11–20.
2. "Where Boys Learn to Earn a Living," K. Woods, *ibid.*, 40–45.
3. "Preparing the Boy for Industry," L. L. Park, *ibid.*, 46–54.
4. "Farm Management," W. J. Quick, *ibid.*, 85–91.
5. "Journalism," H. L. Smith, *ibid.*, 92–101.
6. "The Practice of Medicine," H. L. Smith, *ibid.*, 103–109.
7. "The Girl of To-morrow," B. R. Andrews, *ibid.*, 174–184.
8. "Wage-Earning Occupations for Women," M. S. Woolman, *ibid.*, 196–203.
9. "Interior Decorating as Work for Women," M. Robinson, *ibid.*, 273–274.
10. "You and Your Boss," G. H. Lorimer, in *Stories of the Day's Work*, 61–68.
11. "When a Feller is Out of a Job," S. W. Foss, in *A Vocational Reader*, 87–89.
12. "Benjamin Franklin, Printer," P. Pressey, *ibid.*, 127–138.
13. "The Return of Rhoda," S. Glaspell, *ibid.*, 201–210.
14. "How I Became a District Nurse," L. Dodge, *ibid.*, 222–228.
15. "Where Mark Twain Got His Stories," E. T. Brewster, *ibid.*, 228–236.
16. "The Aerial Acrobat," in *Careers of Danger and Daring*, 255–292.
17. "Pictorial Story of the Fishing Industry," *Wonder Book of Knowledge*, 325–330.
18. "Up the Cooley," H. Garland, in *The Promise of Country Life*, 142–188.
19. "What Shall I Do for a Living?" *Compton's Pictured Encyclopedia*, 9: 3653–3657.

B. MAKING GOOD AT ONE'S WORK

1. MISS JONES LEARNS HER JOB

FLOYD W. PARSONS

Read this narrative to find characteristics of success not mentioned in the earlier selections of this unit. As you find them, enter them in the Applicant's List suggested on p. 394.

On the night before the memorable day when Mary Jones was to seek employment, the family gathered in council, and the prospective saleswoman was so filled with advice that her inexperienced mind was quite bewildered by the multitude of "don'ts" designed to safeguard her against errors that were supposed to be fatal in hunting a job.

When the morning arrived, this youngest daughter was brushed and polished to suit the critical taste of her family, and long before nine o'clock was waiting in the office of the employment bureau of a large department store in New York. Other applicants came in one by one until there were seven hopeful members in the party.

Then the ordeal began. A pleasant young woman gave each applicant a blank form to fill out. Mary could not write much on the sheet, except that she lived at home and had finished high school; she gave as her references the names of her minister and an old family friend.

Half an hour later Mary was asked to step into the office

of the employment manager, where she met a tall, dark, polite young man who requested her to remove her hat, and then asked her many questions, most of which appeared to have no bearing on the work in hand. Mary failed to notice the glances the employment manager cast toward the mirror, where, quite unknown to her, he could scan the image of her face and hair.

Right here the young applicant came near meeting defeat. She did not know that one of the chief requirements for a saleswoman in a high-class store is neatly dressed hair. Only that morning Mary had accepted the suggestion of her older sister, and instead of her usual simple braid, had dressed her hair in a barbarous style that was a sort of cross between the coiffure of a Hottentot and a Fiji Islander.

Mary did not know that the man she faced was a college graduate with years of experience in the study of feminine types and their adaptability to the business of selling merchandise. Little did she realize that he was trying to form a picture of how she would look with her hair modestly dressed, nor did she know that if she got the job the first action of the manager would be an order to one of his women assistants tactfully to request her to reduce the area occupied by her fluffed hair.

The manager completed his survey of the new applicant, and turned her over to a young woman, who conducted her to a room where further strange questions were asked. Once more Mary was puzzled; she did not know that she was in the hands of a young woman from a great university whose profession was vocational psychology. Even if she had known that she was now in a laboratory where human qualities are tested very much as chemicals are analyzed, the knowledge would have meant little to her.

But Mary was in earnest, and readily complied with all the requests of the examiner. It was apparent to her that they wanted to test her eyesight when she was asked to read words of diminishing size on a large card twenty feet distant.

But it was all Greek when they gave her a pencil and paper with a column of strange words, each one of which seemed to be nothing but a jumble of letters. She was told that the words were the names of animals, and was asked to see how quickly she could write the correct names beside the words with the misplaced letters. The first letters were *niol*, for which she quickly wrote *lion*. Then came *tgrei*, and she wrote *tiger*. But farther down the list, where the words were longer, the words were not so easy. It took her several seconds to discover that *clreoicdo* spelled *crocodile*, and she was only half finished with the column when she was stopped by the examiner, who — unknown to her — had watched the time and had allowed ninety seconds for the test.

Mary next started on a list of cities in which the letters of each word were again scrambled. This time she showed her smartness by skipping several difficult words on her way down the list, and by so doing managed to get to the bottom and had finished reconstructing several of the hard names she had first omitted before the allotted time was up. That the examiner was pleased with her effort Mary could plainly see; her hopes were again restored by this show of encouragement.

Next she was examined in naming colors, then in checking numbers, and in other tests designed to grade her intelligence. She passed the physical examination successfully, and a little later was called to the desk of the employment manager, where she signed the employee's agreement to perform her work faithfully and to become a member of the company's Mutual Aid Association. Before leaving she was given a manual of information which she was asked to read carefully, and was told to report in the morning.

All that afternoon Mary studied the book of information about the store. She learned that if she were neither late nor absent for any part of a day for four consecutive weeks she would be allowed one half day's summer vacation. This meant that if she could keep up a perfect record until the fol-

lowing summer the company would grant her an additional week's vacation with pay. But she also found that if she were late four times in any four consecutive weeks the penalty was one day's suspension. In case of sickness she was to notify the Mutual Aid Association, and prompt assistance would be rendered by one of the nurses or doctors who were in the regular employ of the company.

After noting carefully the instructions about the color and style of clothing and shoes she should wear at business, Mary studied the remarks on unnecessary waste. She was informed as to the proper use of twine and wrapping paper, the handling of delicate fabrics with soiled hands, the throwing away of useful lengths of cord or rope, the careless dropping of fresh wrapping paper to be trodden upon, and the waste from using paper to protect one's sleeves. Other rules warned against loitering about the store, chewing gum, reading books or letters, leaving a department without permission, and taking cloaks, hats, umbrellas, bags, and lunches to the department where the employee worked.

The manual stated also that promotion was sure to follow a display of ability and willingness, for the policy was to fill all vacancies, when possible, by the advancement of the company's employees. In the case of an opening in any department, the plan was to post a notice to that effect, and all employees were invited to apply for any vacant position they believed they could properly fill. Each month three prizes were given to the employees who made the best three suggestions for the betterment of store service. Boxes were located in convenient places, into which the ideas intended for the contest were to be dropped. The first prize was ten dollars, the second five dollars, and the third two dollars.

Nothing interested Mary more than the description of the department of training. She found that a part of every day was devoted to class work, where she would be instructed in store system and salesmanship. If she preferred, she might learn to operate an adding-machine, a dictating-machine, or

one of the other mechanical devices used in large business houses. She read that there was a special officer, the assistant superintendent of training, whose duty it was to interest herself in each of the girls, both at the store and at their homes, when so desired. It was this woman's duty to listen to the various tales of woe, to advise in business and personal matters, and to render material help, even to advancing money in cases of urgent need.

Information concerning the recreation-room, where employees might rest and read in comfort during their lunch-time, appealed to Mary's sense of justice. Her attention was also engaged by the rules concerning the library that was solely for the use of employees.

It was news to her that great department stores provide facilities to enable their workers to save money. She learned that this concern operated a branch of a big New York bank, and that any amount of money from five cents up was accepted for deposit.

She learned that the Mutual Aid Association was governed entirely by the workers themselves. All matters of information concerning the society were posted regularly, so that every employee at all times might know the exact state of affairs of the association. The dues were never to exceed ten cents a week, and each girl, after being in the company's service three months, was given an insurance policy for five hundred dollars, which was increased one hundred dollars a year until it reached a total of three thousand dollars. Mary read this information aloud to her mother, whose struggles with life had made her appreciative of safeguards.

The youthful aspirant skipped hastily through the paragraphs devoted to a description of the summer camp maintained by the company for its women employees. She noted with satisfaction that the rates for board were moderate and the railway fare to the vacation house not excessive. Vacations were a long way off, while other matters were pressing.

The comments in the manual now turned to such matters

as the treatment of customers and the store's information bureau. The new employee was told how important it was that courtesy and accuracy should be observed in directing customers where to find merchandise. She was told that when a shopper asked for leather goods, it was necessary to inquire what kind of article was wanted. Pocket-books and traveling bags are both made of leather, but are sold in different departments. Each girl who had not memorized the store directory was advised to consult her handbook containing an alphabetical list of articles and departments, in directing shoppers. The rules insisted that a salesgirl should never resort to guessing and thereby run the risk of losing the goodwill of a customer.

Special notice was included to exercise care in making promises of delivery, so that disappointment should not result from failure to fulfill the assurance given. Other instructions imparted knowledge as to what must be done in case a customer was taken ill suddenly.

After these directions, Mary read with wonder of the services the store was prepared to render its customers. One department was equipped to purchase railroad, steamship, and theater tickets; to issue and cash express orders; to conduct a post-office; to send telegrams; to procure hotel reservations; to arrange special tours; and to act as agent for express and transfer companies — all free of charge. If a non-English-speaking customer came in, an interpreter was available to make known the stranger's wishes. Should a patron desire advice in shopping, there was a personal service bureau ready to render assistance.

Two further points interested her. One explained the arrangements that were made to permit any employee to make purchases, and contained the good news that a discount would be allowed. The other suggestion pertained to the company's publicity, and stated that, since the permanent success of the store depended largely upon the truth and correctness of the firm's advertisements, the company would pay

one dollar to the employee who first called the attention of the manager's office to any exaggeration, mistake in printed price, grammatical error, false statement, or misspelled word that appeared in any newspaper or other announcement.

Having mastered the rules and regulations, Mary retired that night with the happy thought of a great adventure well begun.

When she arrived at the store the next morning, she was sent up to school, where thirty minutes were devoted to a study of the company's rules and policies, after which an hour was taken up by lessons in store system. Next she was sent to a trained teacher, upon whom rests the responsibility of properly placing each new girl in the department for which she is best qualified. About fifty girls were already in this training department, and Mary learned that frequently a whole month is devoted to training a new girl. She soon discovered the basis of the plan that was followed. Each new employee was tried out in different departments during her time of apprenticeship.

One girl, called Jerry, who had already sold everything from notions to wicker furniture, enlightened Mary on many points. She told Mary that much depended on the impression a girl made on the head of her department, and explained that different departments required different mental and physical types. In order to sell veiling a girl needed to be rather tall on account of the height of the counters, and must have an attractive face and well manicured hands, because she had continually to hold the veilings over her face to display them properly. She said only special types could sell evening gowns; and as for suits, she knew that only last week, out of ten apprentices who were sent down to work in a suit sale, only three were selected by the department head as being qualified for that kind of selling.

To gain her first experience, Mary was sent to the hosiery department. When she went to lunch two hours later she was very proud of the fact that she had really made some

splendid sales. Sitting beside her at the lunch-table was a little girl of her own age, who had formerly worked in a hat factory. This young woman was disturbed over the fact that her work had appeared to be unsatisfactory, and that she had been sent to the employment manager's office to explain her trouble.

She had told the manager frankly that she did find it hard to keep her stock in order, but that there was not a girl in the department who kept the buttons and hooks and eyes in better shape. She saw to it that in her stock none were missing. That night, on the way out, Mary met the same little girl, and found her very happy over the fact that she had been transferred to a department where she had lots of sewing to do — and she just loved to sew. The cloud in her life had disappeared, for she no longer had to keep stock.

Three weeks passed before Mary finally left the training department and was given a regular job selling cretonnes and similar draperies. Already she had attended one lecture at the Museum of Art, where with a group of her fellow-workers she had heard a wonderful talk on interior decoration. Her friend Jerry had been placed in the yarn department and had just returned from Philadelphia, where she and other girls selling yarns had been taken to visit a great mill in which were manufactured yarns like those sold in the store.

Mary now had her insurance policy and was a full-fledged salesgirl. Only the other day the buyer for her department told me that the Jones girl knew more about cretonnes and the patterns printed on them than he did himself. He said that several customers had commented on the girl's unusual knowledge of interior decorations, and added that everything was being done to encourage her interest and enthusiasm.

The employment manager smiled and remarked that "the further we go in this business of making a real science of salesmanship, the more girls we shall have like Mary, who is handling the articles she appreciates and is doing the work she enjoys."

The manager explained that a girl who may possess an active mind and yet be clumsy with her fingers, should never be put to doing things that require manual dexterity. On the other hand, girls who are mentally slow but very nimble with their fingers, fail in jobs that necessitate brisk thought. In other words, the mental and physical agility of the individual must be determined, and the job fitted to the person, not the person to the job.

CLASS ACTIVITIES

1. Describe Mary's attitude toward her work. What qualities of a good salesman suggested by this story did you add to your "Application List"?
2. Describe the attitude of the other employees in the store. What helped to create the spirit of the store?
3. What three incidents in this story might help you in beginning work in a new place? In applying for a job?
4. What information would you select from this article for a talk concerning a modern department store?
5. Find evidence of the value of studying spelling and grammar. If you have had intelligence tests in school, compare your experience with Mary's.
6. Topics for oral or written work:
   a. The department I should like best.
   b. Some advantages of a wide range of experience.
   c. The value of evening classes for business life.
   d. The value of a liberal education in business.

A GROUP OF SELECTIONS ON WORK

1. First read the selections to discover in what respects they are similar.
2. Then read each thoughtfully to see what particular message it has.
3. Read each aloud; then practise the one you think best for oral reading to the class.

2. BE LOYAL TO YOUR JOB

ELBERT HUBBARD

IF you work for a man, in heaven's name work for him. If he pays wages that supply you your bread and butter, work for him, speak well of him, think well of him, stand by him, and stand by the institution he represents. I think if I worked for a man I would work for him. I would not work for him a part of his time, but all of his time. I would give an undivided service or none. If put to a pinch, an ounce of loyalty is worth a pound of cleverness.

If you must criticise, condemn, and eternally find fault, why, resign your position, and when you are outside, complain to your heart's content. But, I pray you, so long as you are a part of the institution, do not condemn it. Not that you will injure the institution — not that — but when you speak critically of the concern of which you are a part, you speak critically of yourself.

3. WORK

HENRY VAN DYKE

Let me but do my work from day to day,
In field or forest, at the desk or loom,
In roaring market place or tranquil room;
Let me but find it in my heart to say,
When vagrant wishes beckon me astray,
"This is my work; my blessing, not my doom;
Of all who live, I am the one by whom
This work can best be done in the right way."

Then shall I see it not too great, nor small, —
To suit my spirit and to prove my powers;
Then shall I cheerful greet the laboring hours,
And cheerful turn, when the long shadows fall
At eventide, to play and love and rest,
Because I know for me my work is best.

4. WHAT OF THAT?

ANONYMOUS

Tired? Well, what of that?
Didst fancy life was spent on beds of ease,
Fluttering the rose leaves scattered by the breeze?
Come, rouse thee! Work while it is called day!
Coward, arise! Go forth upon thy way.

Lonely? And what of that?
Some must be lonely; 'tis not given to all
To feel a heart responsive rise and fall,
To blend another life into its own;
Work may be done in loneliness. Work on!

Dark? Well, what of that?
Didst fondly dream the sun would never set?
Dost fear to lose thy way? Take courage yet;
Learn thou to walk by faith, and not by sight;
Thy steps will guided be, and guided right.

Hard? Well, what of that?
Didst fancy life one summer holiday,
With lessons none to learn, and naught but play?
Go, get thee to thy task! Conquer or die!
It must be learned; learn it, then, patiently.

CLASS ACTIVITIES

1. Make a "target" plan, using the three selections and grouping them around one idea. How would you word an idea to put in the bull's-eye that would include all three? Which illustration would count most, being placed nearest the centre; which farthest from the centre? Explain.
2. Do you think Hubbard expects one to be contented with a humble task? Does he agree with this advice of Elizabeth Barrett Browning:

> Let us be content in work
> To do the thing we can, and not presume
> To fret because it's little.

3. In what respects are the selections similar in meaning? What is the special message of each?
4. Let a team of three boys compete with three girls in reading the three selections aloud. Then choose two other teams and repeat the contest. If you hold this contest after real preparation, ask your principal to be the judge. The defeated teams may care to challenge the victors to another reading contest, using other selections.
5. Apply each of the three poem selections to Mary Jones. Which best fits her? Which best tells what Billy Lanford lacked at first? Which agrees best with "To-day" (p. 395)?
6. Topics for oral or written work:
   a. How some one I know made a small task a stepping-stone.
   b. What it means to be loyal to our school.
   c. Speaking well of our school.
   d. "All work and no play makes Jack a dull boy."

Volunteer work. Make Van Dyke's sonnet your own by memorizing it. Follow these directions exactly:

Read the sonnet thoughtfully. See how the ideas are related; get the sequence of the thought.

work

where: *a.* in field, or forest
b. at the desk, or loom
c. in roaring market-place
d. in tranquil room

when vagrant wishes beckon me astray
reply: let me but do my work
results: *a.* find it not too great or small
b. to suit my spirit and to prove my powers
c. cheerful greet the laboring hours
d. cheerful turn; when to play and love and rest
because: I know for me my work is best

2. Read it aloud again, thinking of the meaning.
3. Read it again to notice the connecting words and phrases.
4. Read it again, looking away from the book as much as possible, but saying every word.
5. Then try to repeat the poem, book closed, with your finger in the place.
6. Pick out the parts *hardest* to remember; see how they fit in with the easy parts. Fix in mind the *picture* of the hard parts as they appear on the page.
7. Open the book and read the whole poem aloud.
8. Now you should have mastered it. Repeat it in the morning when you are coming to school, and in the afternoon when you are going home.

5. A FABLE

RALPH WALDO EMERSON

The mountain and the squirrel
Had a quarrel,
And the former called the latter, "Little Prig."
Bun replied,
"You are doubtless very big;
But all sorts of things and weather
Must be taken in together,

To make up a year
And a sphere.
And I think it no disgrace
To occupy my place.

If I'm not so large as you,
You are not so small as I,
And not half so spry.
I'll not deny you make
A pretty squirrel track;
Talents differ; all is well and wisely put;
If I cannot carry forests on my back,
Neither can you crack a nut."

CLASS ACTIVITIES

1. Put the meaning of the fable into one short sentence.
2. Write the story told in the poem in prose, as a newspaper reporter might relate it.
3. Do the mountain and the squirrel talk like real people? Explain.
4. Compare this fable with the quotation from Elizabeth Barrett Browning, on p. 428.
5. Be prepared to tell other fables; choose Jane Taylor's "The Discontented Pendulum," Æsop's "The Fox and the Mask," or one like them.
6. Tell a story you have read or heard that has the same point to it that you find in the poem.

CLASS-LIBRARY READINGS

MAKING GOOD AT ONE'S WORK

1. "Sidney Lanier, Poet," *Makers of Our History*, 343–352.
2. "Peter Cooper, Friend of Boys," *ibid.*, 173–184.
3. "The Legend of Sleepy Hollow," Washington Irving, in *The Promise of Country Life*, 270–303.
4. "Hoeing Turnips," R. Connor, in *Stories of the Day's Work*, 212–225.
5. "Building Up a Paper Route," A. D. Meister, *ibid.*, 291–296.
6. "Pitcher, Shortstop, or Outfielder," E. B. Lincoln, in *A Vocational Reader*, 20–25.
7. "Sally Patton's Quiet Day," F. M. Fox, *ibid.*, 175–181.

8. "The Girl President of Wellesley," Anonymous, *ibid.*, 191–198.
9. "Preparing to be a Teacher," K. W. Gehrkens, *ibid.*, 211–215.
10. "Department-Store Education," H. R. Fox, *Opportunities of Today*, 216–218.
11. "The Rules of the Game," S. E. White, in *Joy in Work*, 121–135.
12. "Cooking When Mother Is Sick," *Compton's Pictured Encyclopedia*, 2: 875–878.

C. WORKING ONE'S WAY UP

1. INITIATIVE

ELBERT HUBBARD

The world bestows its big prizes, both in money and honors, for but one thing, and that is INITIATIVE.

What is INITIATIVE? I'll tell you: It is doing the right thing without being told.

But next to doing the right thing without being told is to do it when you are told once. That is to say, carry the message to Garcia; those who carry a message get high honors, but their pay is not always in proportion.

Next, there are those who never do a thing until they are told twice; such get no honors and small pay.

Next, there are those who do the right thing only when necessity kicks them from behind, and these get indifference instead of honors, and pittance for pay.

This kind spend most of the time polishing a bench with a hard luck story.

Then, still lower down in the scale than this we have the fellow who will not do the right thing even when some one goes along to show him how and stays to see that he does it; he is always out of a job, and receives the contempt he deserves, unless he has a rich Pa, in which case destiny patiently waits around the corner with a stuffed club.

To which class do you belong?

CLASS ACTIVITIES

1. Compare this definition of initiative with the one found in the dictionary.
2. Name the kinds of workers Hubbard describes.
3. Notice how Hubbard gradually goes down the scale of workers. Try making a descending scale of workers which will apply especially to pupils in school.
4. Look over the tables of contents in *Book One* and *Book Two*. Name men and women mentioned in both books who possessed initiative as Hubbard defines it. What three had the most initiative? Make a class list of the ten most successful men, to use in Class Activities after the next selection.
5. Answer Hubbard's final question for yourself, secretly, without saying a word to any one.

2. BOY WANTED

FRANK CRANE

How many new items can you find here for your "Application List"?

A boy who stands straight, sits straight, acts straight, and talks straight.

A boy who listens carefully when spoken to, who asks questions when he does not understand, and does not ask questions about things that are none of his business.

A boy whose finger-nails are not in mourning, whose ears are clean, whose shoes are polished, whose clothes are brushed, whose hair is combed, and whose teeth are well cared for.

A boy who moves quickly and makes as little noise about it as possible.

A boy who whistles in the street but not where he ought to keep still.

A boy who looks cheerful, has a ready smile for everybody, and never sulks.

A boy who is polite to every man and respectful to every woman and girl.

A boy who does not smoke cigarettes and has no desire to learn how.

A boy who never bullies other boys or allows other boys to bully him.

A boy who, when he does not know a thing, says: "I do not know"; and when he has made a mistake says: "I'm sorry"; and when requested to do a thing immediately says: "I'll try."

A boy who looks you right in the eye and tells the truth every time.

A boy who would rather lose his job or be expelled from school than tell a lie or be a cad.

A boy who is more eager to know how to speak good English than to talk slang.

A boy who does not want to be "smart" nor in anywise attract attention.

A boy who is eager to read good, wholesome books.

A boy whom other boys like.

A boy who is perfectly at ease in the company of respectable girls.

A boy who is not a goody-goody, a prig, or a little Pharisee, but just healthy, happy, and full of life.

A boy who is not sorry for himself and not forever thinking and talking about himself.

A boy who is friendly with his mother and more intimate with her than with any one else.

A boy who makes you feel good when he is around.

This boy is wanted everywhere. The family wants him, the school wants him, the office wants him, the boys and girls want him, and all creation wants him.

CLASS ACTIVITIES

1. From the list of men showing initiative, made according to directions on p. 433, choose names which you might suitably place after ten of the paragraphs in "Boy Wanted." Compare your

results and, after discussion, decide what names are most suitably chosen.

2. What boy in *Book One* or *Book Two* best fits the advertisement "Boy Wanted"? What boy fits it least?

3. TRY AGAIN

WILLIAM EDWARD HICKSON

These familiar lines by William Edward Hickson have been as often quoted as some of the best-loved verse in our language.

'Tis a lesson you should heed,
Try again;
If at first you don't succeed,
Try again;
Then your courage should appear,
For if you will *persevere*,
You will conquer, never fear,
Try again.

Once or twice, though you should fail,
Try again;
If you would at last prevail,
Try again;
If we strive, 'tis no disgrace
Though we do not win the race;
What should we do in that case?
Try again.

If you find your task is hard,
Try again;
Time will bring you your reward,
Try again;
All that other folk can do
Why, with patience, may not you?
Only keep this rule in view,
Try again.

4. THE STORY OF TWO CLERKS

H. IRVING HANCOCK

Compensation in the first sentence means *reward* or *return.* See what the two clerks planted and what they reaped.

Emerson began his essay on "Compensation" with the remark that he had always wanted to write on that subject. There is a true story on compensation from the salary viewpoint that I have always wanted to relate, and now I am going to do it. The two young men to whom the story refers were schoolboy friends of mine. I knew the facts in the case of each and can tell the story accurately.

The two boys, who may be called Smith and Brown, were graduated in the same year from the same high school. Chums, more or less, for years, they decided to start in the turmoil of life in the same business house. They secured positions in the same large dry-goods store, and were assigned to work as salesmen behind the lace counter.

"This isn't much of a place," remarked Brown, rather dubiously.

"Not a bad place," returned Smith, consolingly, "and we're getting five dollars a week to start with; not very bad pay for boys!"

There were long hours to be served, and the work was hard. There were many impatient customers to be waited upon. As both boys lived some twenty minutes' walk from the store, they walked home together in the evening.

"Pretty slow life, this!" grumbled Brown. "Think of the pay we're getting."

"It's not bad for youngsters," rejoined Smith. "It might be worse."

Neither boy had any living expense to pay, save for noonday luncheon and laundry. Smith brought his luncheon; Brown bought his. Smith began to bank an account; Brown went to dances as often as he could afford the money. He soon found other evening pastimes that absorbed all his

money and what he could borrow from his father. Naturally the two boys began to drift apart, except for that little evening walk home. Brown began to grumble at what he termed the slowness of promotion.

"It will come all right," returned Smith, "if we work for it."

At the end of the first year Brown observed —

"I guess you're right. My pay has been raised a dollar a week. A fine return for hard work, isn't it? Did you get a raise?"

"Yes; I've been raised to seven."

Brown whistled his amazement, looked thoughtful for a few moments, and then blurted out —

"That's a sample of the favoritism that goes on in the business world. Whom did you get on the right side of?"

"I don't know," answered Smith, and he told the truth.

"I'm going to find out about this," grumbled the other boy, and he did. The department manager supplied the information. While both boys had done everything required of them, Smith had been more anxious to please customers in all the ways possible to a salesman.

But the matter rankled in Brown's mind. He was brooding over the injustice one day when a woman customer approached the lace counter and inquired for a certain make of lace.

"Sorry; haven't got it," said Brown, briefly.

In a second, Smith was at his side, whispering —

"Jack, you'll find it on the third lower shelf down."

Turning, Brown went to the shelf indicated, found the goods, produced them, and made a sale. As soon as the customer departed, the manager, who had been looking on, stepped up and asked —

"Brown, why didn't you learn to know your goods?"

"I can't remember everything, sir."

"Smith seems to be able to do so," said the department manager, as he moved away.

That remark about knowing one's goods stuck deep in Smith's mind. He already had a very good knowledge of the laces that he had to sell, but he went to the department manager and said —

"I should like your permission to cut a small sample from every one of the laces in the department."

"What do you want with them?"

"I want to take the samples home and study them evenings. I want, if possible, to become so familiar with every make and pattern of lace that I could tell it by touch in the dark."

"Take the samples," was the brief reply.

After a few weeks of patient study, aided by the use of a microscope, Smith discovered that he knew three times as much about laces as he had ever expected to know. Out of his savings he bought a powerful hand magnifying glass which he carried with him daily to the store. By degrees he became able to demonstrate to customers the relative values of the different laces. The department manager looked on approvingly and added all the information in his power.

At the end of the second year Brown's salary remained six dollars. Smith's pay had been increased to ten.

"Favoritism!" snapped Brown. "I wonder, Fred, why the manager can't see anything in me. I work as hard as you do."

"Not in the evenings," was the quiet answer. "I spend most of my evening time studying the laces. Why don't you do the same? You're a good fellow, and willing. Come up to the house with me to-night, and after supper I'll show you some of the things I've been studying."

"Can't do it," replied Brown; "I've got an engagement."

There was an evening high-school course in chemistry. Deciding that he knew as much as he was able to learn about the fibers of every kind of lace sold in the store, Smith decided to take up chemistry in the hope that he could learn something more about them. The course was elementary, but he applied himself with so much diligence that the teacher

soon began to take an especial interest in him. Then the young man explained what he wanted most to learn.

"Stop a few minutes every evening after the class is dismissed," advised the instructor. "Bring samples of your laces with you, and I'll see what help I can give you."

All through the winter, Smith toiled at chemistry. He learned how to make tests of the lace fibers that were impossible with the microscope alone. One day a lot of samples of laces came in from abroad. Some of these the young man, after using his glass, considered inferior. He took them home that evening and applied the chemical tests. The next morning he reported to the department manager, a successor to the one under whom he had first been employed, that the samples were of spurious goods.

"Why don't you mind your own business?" was the irritable retort; "these samples are all right."

But Smith, saying nothing, went to the superintendent and made a statement of what he had discovered.

"How on earth do you know this?" asked the superintendent.

"Professor Moeckmann has been instructing me in chemical tests of thread fibers for several months."

"I'll think the matter over," said the superintendent, briefly. He did, even to the extent of communicating with the professor. The result was that the new department manager was dismissed, and Smith, after some urging, took his place, at a beginning salary of thirty dollars a week. Brown, who was now receiving eight dollars a week, had begun to feel a positive dislike for his more successful friend.

Three years went by. Smith drew forty-five dollars a week, while his former friend had gone up to ten. The buyer for the lace department, who had grown old and wished to retire, was about to make his last trip to Ireland and France for laces. He requested that Smith go with him.

"You always have been lucky," growled Brown, when he heard the news. "You're off for a fine trip abroad, with all

expenses paid, and I suppose you're going to have your salary raised?"

"Pitch in and study, Jack," whispered Smith. "I've three days yet before I sail. Come around, and I'll get you started."

"Sorry, but I can't, old fellow. I've got engagements for every night this week."

Two months later Smith returned to the store, strolled through it, and went up to the lace counter. Brown stood there, looking most disconsolate. His face brightened up, however, as he saw his friend approaching.

"Fred," he whispered excitedly, "I guess you can do me a big favor. I've been discharged. The fellow they put in your place has told me I'm through Saturday. He said a man who had been here so long and who was worth only ten dollars a week wasn't worth keeping. I suppose, though" — enviously — "you've had another raise of pay?"

"Yes, Mr. Stallman, the foreign buyer, has retired, and I've been put in his place. I'm to begin with four thousand a year and traveling expenses."

Brown threw up his hands in a gesture that expressed a variety of emotions.

"Favoritism!" he muttered, scowling at the ceiling.

CLASS ACTIVITIES

1. List the events leading to Smith's promotion in their time order. What do you add to your "Application List" from this selection? Tell some of the requisites of good salesmanship.
2. Name the wrong attitudes Brown manifested toward his work in the order they are told in the story.
3. What part of this story reminds you of "Acres of Diamonds"?
4. Hancock says this is a true story "of compensation from the salary view-point." Is he entirely right? Explain.
5. Find lines in "Be Loyal to Your Job," p. 426, that apply to Brown; find others that apply to Smith. Apply quotations from "Initiative," p. 432, to Smith and to Brown. Which of the two boys resembles Mary in "Miss Jones Learns Her Job," p. 417?

6. What additional information about the management of department stores did you learn from this selection? Does anything here contradict statements in "Miss Jones Learns Her Job"?

ADDITIONAL READINGS.—1. "Lincoln, the Great Commoner," Edwin Markham. 2. *A Dutch Boy Fifty Years After*, Edward Bok. 3. "Invest Yourself in Your Job," in *The American Magazine* (Jan., 1922, 96–98).

5. DICK AND HIS PEACHES

WALTER E. ANDREWS

"I want to talk with you about that nephew of yours, William," said Mrs. Waddle to her husband.

Mr. Waddle laid down his newspaper and said, "Well?"

"Dick will be seventeen years old next month."

"'Tisn't his fault, Mandy."

"He's getting to be a young man," Mrs. Waddle declared, paying no attention to this pleasantry. "He's had a good schooling, and he's smart and healthy. It's time he quit this foolishness of puttering with peach trees; and it's time you quit backing him up in it."

"Me?"

"It's nobody else. You rented him that five-acre lot, and gave him the option of buying it at the end of six years, didn't you? And you lent him forty dollars to buy trees with. And you told him that he could use your team and tools."

Mr. Waddle shuffled his feet uneasily on the porch steps. He looked uncomfortable — and guilty.

"You're Dick's uncle," continued his wife. "He's alone in the world, and you're responsible for his bringing up. You ought to squelch his peculiar notions, and make him do as other boys of his age do."

"Maybe so. Maybe."

"Other boys hire out as farm hands or clerk in stores, or do something else that's fitting to their age. They don't have

queer notions about getting land, planting trees, doing things different, and being 'independent.'"

"Dick's *different*, that's all," said Mr. Waddle. "He's paying his board, isn't he?"

"Yes."

"He buys his clothes, doesn't he?"

"Yes — lately."

"He's a good, honest boy?"

"Yes, yes."

"He's the best strawberry picker and the smartest peach packer in the neighborhood?"

"I suppose so."

"Then suppose we let him alone. It may be he'll surprise us all before he's many years older." Mr. and Mrs. Waddle were not the only ones who said that Richard Russell certainly was "different." The schoolmaster said it, and the Peachville neighbors unanimously affirmed it. His "oddness" asserted itself in many ways that "went contrary" to the settled notions of the good Michiganders of Peachville township.

People liked Dick, but they distrusted his "oddness." They admired his frank, honest face, his fidelity to his word, his industry, and his cheerfulness; but they could not quite forgive the fact that he "wasn't just like the other boys." Fruit farmers liked to hire him by the day at picking time because of his deft and conscientious work; but they shook their heads doubtfully when he ventured to suggest some improvement here, some change there, that, in his opinion, would either facilitate the work or render the result more certain.

"Why," said Deacon Pepperton one day to Hank Peters, confidentially, "what do you suppose that Russell fellow wanted me to do last week? He wanted me to let him build a machine that would sort peaches into four different sizes! He called the thing a 'grader,' and said he'd seen a picture of one in some farm paper."

"Did you let him?"

"Me? No, siree! I wasn't going to have *my* peaches spoiled by being run through the hopper of a machine. The idea!"

Then Hank Peters told, with many wags of the head, how Richard Russell had once suggested the making of a basket turntable in the peach-packing shed.

"Sounds just like him!" remarked the deacon. "What did he say the thing would do if he *did* make it?"

"That it would save work and time," answered Hank, disdainfully. "He was working for me that day, fastening on covers. As you know, when one end is fastened, the basket must be lifted up and turned round so that you can get at it to fasten the other end. Well, he worked away an hour or so. Then all of a sudden he said, 'Mr. Peters, I could whittle out a board the size of a basket bottom, nail an edge round the board to hold the basket in place, and mount the board on a pivot so that it would swing just even with the top of the packing table.'

"'I suppose you could,' said I. 'What of it?'

"'Why,' he said, 'it would save lifting the basket. All I'd have to do would be to set the basket on the pivot board, fasten one end of the cover, swing it round — so — and there'd be the other end ready for fastening.'

"'Young man,' I said, 'I'm paying you a dollar and a quarter a day to *work*. Don't always be looking for easy jobs.'

"'I didn't mean it that way,' he answered. 'I was just trying to plan a way that would push the work faster.'

"'Much obliged,' I said, 'but I'm not paying wages to inventors *this* year.' And then he shut up."

The deacon laughed heartily at the story, and ventured to predict that William Waddle would have a time with that boy before he got through.

The peach trees in Richard's orchard had been planted three years. They had grown into thrifty, beautiful trees — the pride of Richard's heart and the delight of Richard's blue

eyes. Each spring he plowed the land and pruned the branches. Every ten days throughout the season he harrowed the ground. He studied books on horticulture, subscribed to a horticultural paper, and kept his eyes and ears open for any information about practical peach culture.

At odd times he "worked out" for the neighbors by the day, thus earning enough money to pay the rent of his land and his living expenses. He refused several flattering offers to work by the month.

"I can't afford it," he said to one of the farmers who asked a reason for the refusal. "If I worked by the month I should have to neglect my trees, and it wouldn't be wise to do that."

The five-acre piece of land that Richard hoped some time to own was valued at seventy-five dollars an acre, and the rent that he had to pay his uncle was four dollars an acre. The piece lay back from the road, and there were no buildings on it; but the soil was well-drained, high, and sandy — ideal ground for peaches. It was bordered on three sides by prosperous orchards.

"If you should want more land," William Waddle had said, "you can have the front fifteen acres at the same figure. I'm keeping it for you."

"I'll pay for the five first," Richard had answered. He believed that if he could hold on until the trees were five years old, the first full crop would pay, or nearly pay, for the five acres.

Two years passed. Richard was nineteen. His trees were entering their fifth summer, and seemed to promise an excellent crop. When the trees blossomed in the spring the sight was like a vision of promise to the boy.

Early in that same spring Richard bought a spray pump, and at the proper time carefully sprayed all his peach trees. The neighbors laughed, and made jokes about the "squirt gun that would poison all the peaches." In those days the

art of spraying fruit trees was in its infancy. Richard had read about it, and had written to the state agricultural experiment station for instructions, which he had carefully followed.

Even William Waddle looked dubiously at the squirt-gun experiments. "Better go slow," he said to Richard.

"But, uncle, the experiment station people are sure that spraying will prevent the leaf curl. And last year, you know, one third of the peach crop in this neighborhood was lost by that disease."

"Yes."

"It's an idea that seems worth trying."

"Maybe so. Maybe. I'm not saying anything myself, but your aunt is having seventeen fits!"

Later in the season the dreaded leaf curl attacked almost every peach orchard in the county. The leaves curled up into fantastic shapes, assumed strange colors, and finally dropped from the trees; then many tiny peaches followed the leaves. In Richard's orchard the damage was slight; in the orchards of his neighbors more than one half the crop was lost.

"Have you seen Dick Russell's orchard?" asked Mr. Peters one morning, when he met the deacon on the road.

"Yes. Have you?"

"Went through it yesterday."

There was an awkward pause. Then the deacon coughed. "It begins to look," he said, "as if that Russell fellow wasn't such a —" He paused for a word, hesitated, and coughed again.

"Yes, it does look so," admitted Hank. "Well, I got to be going. Good morning, deacon! G'long, Bess! G'long!"

In early August, Richard bought ten dollars' worth of lumber, shingles, and nails, and built in his orchard a small, rough packing shed. Inside the shed he built a packing table, and on that table he put a swinging pivot board such as he had wished to make for Mr. Peters. He also made a

rude peach grader — on the principle of an inclined double track with openings between the rails.

The openings were as narrow at the top as the diameter of a small peach, and gradually became wider toward the bottom of the incline. The peaches, when poured into a hopper at the top of the tracks, rolled down and dropped through the openings at different stages of the journey, according to size. The small peaches dropped through first, then the medium size, then the large ones. Only the extra large peaches reached the basket at the bottom of the incline. The others fell into one of three canvas receptacles immediately beneath the tracks.

William Waddle whistled softly as he examined this contrivance. "Bruise them much?" he asked.

"Not unless they are picked overripe; and you know peaches shouldn't be picked that way."

In September the peach harvest began. No one except Richard had more than half a crop. Richard's trees were, as his uncle expressed it, "loaded." On hearing this statement, Mrs. Waddle sniffed disdainfully. "He'll spoil them all in that machine of his," she prophesied, "before he gets them sold."

"Maybe," said her husband.

When it came to packing the first peaches, Richard met an unlooked-for difficulty. The shipping package used in those days was a close-sided, slat-covered basket that held one fifth of a bushel. When packed, the buyer could see only the top layer of peaches. The custom among most growers at that time was to put little peaches in the bottom of the basket, medium-sized peaches in the middle, and big peaches on top.

Richard Russell objected to that custom; he said it was not honest. He proposed to pack each size by itself, and label the basket accordingly — "Fancy," "No. 1," "No. 2," or "No. 3."

The neighbors laughed at the plan; and they laughed at

his grader. "You'll have your trouble for your pains," they said. "The buyers expect to find little peaches in the bottom of the baskets, and they won't believe that your baskets are any different from others."

"I'll label each basket and guarantee it," maintained Richard.

"They won't believe you."

"I'll make them."

His first shipment he graded carefully, labeled correctly, and consigned to a commission firm in Chicago. A letter, explaining the system of packing, accompanied the shipment. Within two days the sales-account came back, with a check to balance the transaction.

It was a momentous occasion for Richard. That pink check represented the first tangible return from his orchard, the first encouragement after five years of planning, working, and hoping. How crisp the paper felt! How it seemed to rustle and crinkle with golden promises!

But when he came to figure the sales in detail and in comparison with the sales made by various peach growers in the neighborhood, he was greatly disappointed to find that he had averaged no more a basket than his neighbors had.

"Never mind, Dick," said his uncle, consolingly. "It might have been worse."

Richard made no reply. In his heart he felt that his method of packing peaches was the only correct, honest method, and that it was bound to win if ——

Oh, that "if"! Richard sat down in his packing shed and pondered the matter. Picking up one of the peach baskets, he looked at it critically. Turning it over and over, he tried to put himself in a buyer's place, and to imagine how he would feel if he were purchasing hundreds of baskets of peaches from an unknown shipper.

"Should I have time to unpack and examine every basket?" he mused. "No, I'm afraid I shouldn't. Should I be willing to trust a label or a guarantee in a letter? Probably not!

What should I do, then? Pay the shipper the average market price for mixed packing? Of course!"

Then he thought, "If I were going to pay a shipper an extra price for an extra product, I'd want to see the fruit packed, or else I'd want to see the bottom and middle layers of every basket after it was packed."

Seizing a knife, he slashed into one side of the basket in his hand and made a vertical opening about an inch and a half wide in the thin wood. Then, on the other side of the handle, he made a similar opening. Turning the basket round, he cut two corresponding openings in the opposite side.

"I've got it!" he cried, joyfully, and swung the basket round his head as if it were a flag of victory. And sure enough, he had "got it." Experiment showed that peaches packed in such a basket could be as easily inspected underneath as on top; a buyer had only to look to be convinced. And — although Richard did not realize it at the time — the open-sided basket was destined to become the standard peach-shipping package of Michigan.

That evening Richard explained the idea to his uncle. William Waddle listened attentively, while his wife blew her nose suspiciously.

"Doesn't it weaken the basket?" asked Mr. Waddle.

"Not perceptibly."

"Isn't it a lot of work to cut the slits?" demanded Mrs. Waddle.

"I can do a hundred baskets in forty minutes. I tried it this afternoon."

Mrs. Waddle laid down her knitting and looked at her husband. "William, how much do a hundred baskets cost?"

"About two dollars and a half."

"I hope you haven't spoiled two dollars and a half worth of baskets," said Mrs. Waddle.

The following morning Richard shipped one hundred baskets of graded peaches packed in the new baskets. He con-

signed the shipment to the same Chicago commission firm, and inclosed a brief letter of explanation.

In a few days he received a personal letter from the manager of the firm, complimenting him on his "unique, honest packing," and promising extra prices for all peaches thus graded and packed. Inclosed in the letter was a generous check, based on a rate considerably higher than the prevailing market price.

Richard, after supper that night, handed the letter to his uncle. William Waddle read it, winked one eye rapidly, and passed the letter to his wife. She took it gingerly, put on her glasses, and read it through. Then she resumed her knitting.

"Eh?" said Mr. Waddle, after a long pause.

"I didn't say anything," said Mrs. Waddle.

"Are you going to say anything?" her husband ventured to ask.

"No; nothing in particular." But later in the evening she said good night to Dick in a gentler tone than usual.

At the end of the peach season Dick's bank book showed a balance of four hundred and fifty dollars to his credit. He felt like a millionaire. It was a happy moment for the boy when one morning he handed his uncle a check for three hundred and seventy-five dollars, in full payment for the five-acre piece of land.

"I'm proud of you!" said Mr. Waddle. "I'll have a deed made out at once."

Mrs. Waddle said not a word. But that same morning she made a big spice-cake, frosted it carefully, and outlined on top, with raisins, a huge "D." At dinner Dick found the cake majestically reposing on his plate. He gave his aunt a quick look of surprise, but she seemed not to notice.

"Is it for me?" he asked, bewildered.

She nodded.

Getting up from the table, Dick kissed his aunt affectionately on the cheek.

"Shoo-o-o!" whistled William. Then, under his breath, he muttered, "I wonder whether that 'D' stands for 'Dick' or for 'Different'?"

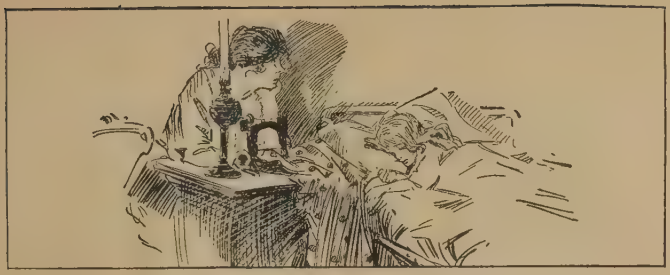
CLASS ACTIVITIES

1. At what point in the story did you begin to guess what Dick's oddness was? Read the first plain hint. Invent another name for the story.
2. Find all the hints in the story that Dick's uncle believed in him. Who believed in McCormick? Who in Field?
3. Why did the neighbors laugh at Dick's plans? Do you blame the deacon for coughing (p. 445)? When did Mrs. Waddle begin to appreciate Dick?
4. Which was the best of Dick's ideas? Why?
5. Do you suppose the peach basket, open at both sides, was invented as described in this story? Suggest other ways in which it might have been invented. Compare Dick's way of invention with that of Ab (p. 110); with that of the primitive woman, (p. 119); with that of other inventors.
6. *Volunteer work.* Do you live in a State in which there are hog clubs, sheep clubs, corn clubs for boys? Tell the class how they offer opportunities like Dick's.

CLASS-LIBRARY READINGS

WORKING ONE'S WAY UP

1. "Horace Greeley, Journalist," in *Makers of Our History*, 266–277.
2. "A Girl of the Limberlost," G. S. Porter, in *Stories of the Day's Work*, 33–42.
3. "Ready for Anything," S. S. McClure, *ibid.*, 55–58.
4. "Promotion in Business," G. H. Lorimer, in *A Vocational Reader*, 87.
5. "The Value of Home Training," W. N. Ferris, *ibid.*, 171–172.
6. "How Education Pays," Anonymous, in *Opportunities of To-day*, 7–8.
7. "Fitting the Man to the Job," B. J. Hendricks, *ibid.*, 23–32.
8. "Where Your Job May Lead To," R. Neeley, *ibid.*, 169–173.
9. "The Zadoc Pine Labor Union," H. C. Bunner, in *Joy in Work*, 80–110.
10. "Women Writers in the United States," *Book of Knowledge*, 7 : 2043–2050.
11. "The Scotch Lad Who Became a Millionaire," *ibid.*, 20 : 6275–6278.



D. THE SATISFACTION OF GOOD WORK

1. WORK: A SONG OF TRIUMPH

ANGELA MORGAN

Work!
Thank God for the might of it,
The ardor, the urge, the delight of it —
Work that springs from the heart's desire,
Setting the brain and the soul on fire —
Oh, what is so good as the heat of it,
And what is so glad as the beat of it,
And what is so kind as the stern command,
Challenging brain and heart and hand?

Work!
Thank God for the pride of it,
For the beautiful, conquering tide of it,
Sweeping the life in its furious flood,
Thrilling the arteries, cleansing the blood,
Mastering stupor and dull despair,
Moving the dreamer to do and dare.
Oh, what is so good as the urge of it,
And what is so glad as the surge of it,
And what is so strong as the summons deep,
Rousing the torpid soul from sleep?

Work!
Thank God for the pace of it,
For the terrible, keen, swift race of it;
Fiery steeds in full control,
Nostrils a-quiver to greet the goal.
Speeding the energies faster, faster,
Work, the Power that drives behind,
Guiding the purposes, taming the mind,
Holding the runaway wishes back,
Reining the will to one steady track,
Triumphing over disaster.
Oh, what is so good as the pain of it,
And what is so great as the gain of it?
And what is so kind as the cruel goad,
Forcing us on through the rugged road?

Work!
Thank God for the swing of it,
For the clamoring, hammering ring of it,
Passion of labor daily hurled
On the mighty anvils of the world.
Oh, what is so fierce as the flame of it?
And what is so huge as the aim of it?
Thundering on through dearth and doubt,
Calling the plan of the Maker out.
Work, the Titan; Work, the friend,
Shaping the earth to a glorious end,
Draining the swamps and blasting the hills,
Doing whatever the Spirit wills —
Rending a continent apart,
To answer the dream of the Master heart.
Thank God for a world where none may shirk —
Thank God for the splendor of work!

CLASS ACTIVITIES

1. Make your own list of Class Activities, completing these suggestions, and adding three others:
   a. Form a question about some man or woman who .....
   b. about reading aloud .....
   c. about the hard words .....
2. Find the poem in Unit Two which most resembles "Work: A Song of Triumph."

2. THE HOME-KEEPER

LYMAN ABBOTT

This selection pictures an ideal worker in the best profession in the world, a profession that does not have an eight-hour day, that does not pay money wages, that often seems to be filled with drudgery. But it is a profession which is the bedrock of happiness, health, and character. There is no higher honor than to be a true home-maker.

The home-keeper has a passion for cleanliness. She abhors dirt and justifies her abhorrence by the scriptural command, "Abhor that which is evil." If dirt be not evil, she knows not what is. She hates vermin as David hated the enemies of Jehovah, with a perfect hatred. She is not a scientist; but she needs no scientist to tell her that the germs of disease lurk in dirt and are carried by vermin.

But no such passion for order possesses her. Cleanliness is itself a virtue. Next to godliness? If she were quite frank with herself, she would probably change the order and say godliness is next to cleanliness. Certainly she would prefer as a visitor a clean sinner to a dirty saint, and she can find no severer rebuke for occasional petty meannesses than to say that people are acting in a nasty manner.

But order is not in itself a virtue: it is only a means to an end. The end is general comfort and general convenience, and she never sacrifices the end to the means. She endeavors to have a place for everything; she tries to train the children — but not her husband — to put each thing in its appointed

place. But she does not nag. If she sometimes follows a careless husband or son, picking up after him, she never does it with a sigh which says, "See how much trouble your carelessness is making me." Because her rooms do not look so spick and span as her neighbors', she sometimes chides herself for not being so good a housekeeper.

But she is a better *home-keeper*, which is far more important than being a housekeeper. Neither her husband nor her boys need to go to clubs or to other homes for liberty; her home is as free as the club. If order is heaven's first law, liberty is its atmosphere; and if she finds it difficult, as she sometimes does, to preserve both the law and the liberty, she prefers the liberty.

So there are in her household hours for meals and meal hours, although the two do not always coincide. The hour for breakfast is half-past seven; but if some morning the boys desire to make an early start for a fishing expedition, the breakfast hour is six; if another morning they can, without neglect of duty, sleep late and wish to do so, it changes to half-past eight or nine. This requires both tact and efficiency in dealing with the kitchen; but when a neighbor asks her if this is not very difficult to manage, she replies cheerfully, "This is what I am for." Neither husband nor children ever know and rarely guess what tact and toil are required. For she surmounts her obstacles without talking about them, except occasionally in a burst of confidence to her husband or her daughter, and then as a narrative of her triumphs, not as a history of her trials.

This subordination of time and place to comfort and convenience is a part of her quite unconscious theory that life is the end, and that all household arrangements are means to that end. She therefore believes that things are for folks, not folks for things, and always acts on that belief. When children from the city make a visit to her country home and ask whether they may run on the grass, she says, "Of course"; and when an older visitor, fearing the effect on the young

spring shoots, asks if that is good for the lawn, she replies smilingly: "No, but it is good for the children."

She has no use for books that cannot be read, chairs that cannot be sat in, a piano that cannot be played, a room that cannot be used. She has some fine books, for she is fond of them, but she does not keep them under lock and key. She would rather injure the book in teaching the child how to use it than injure the child by refusing him the book. If a careless boy or a still more careless visitor breaks a parlor chair by trying to balance himself in it upon the two hind legs, she blames the chair, not the sitter, and does not get another of so delicate a construction. The piano tuner has to come to her house twice as often as to the house of her neighbor; but her children learn to play by playing. And though they may never become musicians, they learn to love music, and in after life a piano always brings to them thoughts of their home and their mother.

She has no parlor with closed blinds and drawn curtains, from which the sun is carefully excluded lest it fade the carpet, and into which visitors are received in state with a sunless and frigid hospitality. Sometimes a critical visitor surprises an unusual disorder, due to a misused liberty in the parlor, which Harry has for the time converted into a nursery, and the mother gently expresses the wish to herself that Harry were not so heedless. But to shut Harry out of the parlor she is quite certain would be no cure for his heedlessness, and that, not the disordered parlor, is what she wishes to cure.

She keeps house for her husband and her children and she adjusts the affairs of her kingdom to meet the needs of her family, not of those who are employed to minister to it. To this rule there is one exception: the Sunday meals are adjusted to give her servants an opportunity for church, and they are encouraged to fulfill with fidelity all that their consciences, not hers, call on them to fulfill churchwise.

The doors of her home are always open to the friends of

her husband and of her children. She is glad to see them, and welcomes them right cordially to what she has to give. But she never tries to give them something better than she gives her own. She has not two standards — one for her family, another for the stranger. She makes no effort to conform her living to the standard of her visitors; she is glad to see them if they will adapt their life for a few days to her standard.

She knows that her husband and her children are home-lovers, and she is content. For love, not ambition, is the inspiration of her life and the reward of her endeavors. She builds her monument herself; and yet she does not know that she has a monument. She lives in it; but she does not know that it exists.

She never dreamed that she was great, or that she was specially useful, or that she had achieved anything worth living for. Sometimes, when she read the stories of historic heroines, she, too, had her "dream of fair women," and looked with a sigh upon her life made up of little deeds, so little that even she who did them was not conscious of the doing, she whose loom moved so noiselessly that she neither thought how long she was at it, nor what a beautiful pattern she was weaving. Indeed, it would have seemed to her, if she had ever thought about herself or her work, to weave itself. But she did not think about herself. Self-consciousness would have destroyed her monument.

Her home grew up quietly, as quietly as a flower grows; and no one knew — she did not know herself — how much she had done to tend and water and train it. Her husband had absolute trust in her. He earned the money, she expended it. And as she put as much thought into her expenditures as he put into his earning, each dollar was doubled in the spending.

She had inherited that mysterious faculty which we call taste; and she cultivated it with fidelity. Every home she visited she studied, though always unconsciously, as if it

were a museum or an art gallery, and from every visit she brought away some thought fitted to its appropriate place in her own home. She was too genuine to be an imitator; for imitation is always of kin to falsehood, and she abhorred falsehood. She was patient with everything but a lie. So she never copied in her own home or on her own person what she had seen elsewhere; yet everything she saw elsewhere entered into and helped complete the perfect picture of life which she was always painting with deft fingers in everything, from the honeysuckle which she trained over the door to the bureau in the guest's room, which her designing made a new work of art for every new friend, if it were only by a new nosegay and a change of vases. Putting her own personality into her home, thus making every room and almost every article of furniture speak of her, she had the gift to draw out from every guest his personality and make him at home, and so make him his truest and best self.

Neither man nor woman of the world could long resist the subtle influence of that home. Whatever circle of friends sat on the broad piazza in summer, or gathered around the open fire in winter, knew for a time the rare joy of liberty — that liberty of perfect truth and perfect love. Her home was hospitable because her heart was large; and any one was her friend to whom she could minister. But her heart was like the old Jewish Temple — strangers came only into the court of the Gentiles, friends into an inner court; her husband and her children found a court still nearer her heart of hearts, yet even they knew that there was a Holy of Holies which she kept for her God, and they loved and revered her the more for it.

She began to build the monument in her teens. She did not finish it until she lay down to her last rest.

CLASS ACTIVITIES

1. Explain the distinction Abbott makes between housekeeping and home-keeping.
2. Think of an illustration from your experience or from your reading

which you might give to illustrate three of the paragraphs. Explain, with an example, how contemptible it is for any one to impose upon or take advantage of such a home-keeper.

3. On p. 456 Abbott stops using verbs in the present tense, and begins using verbs in the past tense. Explain why he makes that change.

4. Read "Mother," *Book One*, p. 98. Name the qualities described in this selection which are mentioned in story by Kathleen Norris. Read also "The Roof-tree," in *Book One*, p. 43. How is the third suggestion in that selection illustrated in the present selection?

5. Find lines in "Work: A Song of Triumph," which would apply to "The Home-Keeper."

6. In describing a good man, the poet Wordsworth once wrote:

> That best portion of a good man's life—
> His little, nameless, unremembered acts
> Of kindness and of love.

Mention details which show that this quotation fits the true home-maker.

7. Find the meaning of: vermin, coincide, obstacles, subordination, inspiration, fidelity, subtle.

8. Topics for oral work:

a. One time my mother showed tact.
b. Science in our kitchen.
c. How knowledge of "first aid" helped.
d. When father fixed the radiator.
e. The many jobs of a housekeeper.
f. An act of true hospitality.
g. A troublesome guest.
h. The rights of a hostess.
i. How to carve a turkey.

ADDITIONAL READINGS. — 1. "The Sacrifice of Father Damien," *Book of Knowledge*, 1: 65–66. 2. *John Halifax, Gentleman*, Diana M. Mulock. 3. "The Sentimental Period," in *Louisa M. Alcott, Her Life and Journals*, chap. IV; chap. V. 4. "The Toy Maker of Nuremberg," A. Strong, in Moses' *A Treasury of Plays for Children*, 261–317. 5. "The Knights of the Silver Shield," R. M. Alden, in *Children's Literature*, 223–237. 6. "Little and Great," Charles Mackay, *ibid.*, 399. 7. "The Revolt of Mother," Mary E. W. Freeman.

3. DISCHARGING THE COOK

ELEANOR HOYT BRAINERD

On whom is the joke in this story?

"Of course, you manage beautifully, honey," remarked the Busy Man, "and Emmeline certainly can cook; but you're so good-hearted that anybody can impose upon you. You mustn't let a servant bully you. Just assert yourself and lay down the law. Tell her what's what, and if she doesn't like it tell her to pack and go."

The Busy Man's hours often made him very late for dinner, and Emmeline was soothed, placated, bribed into serenity by the Little Woman. When the Busy Man came home, a good dinner and a cheerful wife were always waiting and all was outwardly serene, although there were times when the Little Woman looked fagged and showed faint signs of quivering nerves.

It was in January that the looking fagged became a habit and that her eyes began to look so big and her face so white. On the first of February she was taken to the hospital for an operation, the Busy Man for once forgetting his office and giving over to blind, helpless panic, although outwardly he kept up a pathetic, white-lipped pretense of manly self-control and cheerfulness.

All that last day at home the Little Woman was planning for his comfort during her absence, and holding long conferences with Emmeline — a softened, sympathetic Emmeline, secretly wiping tears from her cheeks and divided between distress over the Little Woman's danger and awful joy in the dramatic situation.

When the doctor came with the carriage the Busy Man went with him into the Little Woman's room. She was writing at her desk, and looked up smiling.

"I'm all ready except my coat and hat. Give these to Emmeline, will you, Dick? They're the menus for two weeks. I'll be back by that time."

The Man went hastily toward the kitchen with a mist over his eyes and something clutching at his heart.

She'd be back by that time, if ——

"Don't worry, darling," she said later, as she bade him good-by before the operation. "It's coming out all right. I'm not a bit afraid. I'll be back home again before you know I'm gone, and Emmeline will take splendid care of you — and, Dick, do be just a little careful about her, won't you? She's such a good maid I'd hate to lose her."

When he went home five hours later, limp and shaken, Emmeline gathered him in and fed him the things he liked best and praised the Lord the "blessed lamb" was "getting on so fine," until he caught a little of her buoyant hopefulness and grim fear relaxed its merciless grip on his heart.

For a week all went well at hospital and home. Then the tension began to relax and life to resume its normal values. The Little Woman was practically out of danger. The call of business made itself heard more insistently. There was much to be done in the office, and there was no wife waiting at home to greet him.

The Busy Man stayed a little later than usual one night. The next night he was later still. This went on for a week, and Emmeline's face began to lengthen. Her mistress was getting well, her sympathy declined, and the memory of the Little Woman's entreaties before leaving home grew fainter and fainter. The "two weeks" lengthened into three, seemed likely to lengthen into four or five, and the third week Emmeline's temper burst the bonds of her loyalty.

When the Busy Man came home to dinner at eight o'clock on one Friday evening, she served him an excellent dinner with quiet skill. After the dishes were washed and the kitchen put in order, Emmeline made her appearance in the living-room, where the Busy Man sat reading the evening paper.

He looked up at her, smiling, but the smile died a violent death as he saw her face.

Here was an Emmeline he did not know, an Emmeline with lips set and a deep furrow between her eyes, with shoulders resolutely squared and arms akimbo.

Determination was large upon her. Even her well-starched apron crackled defiantly.

"If you please, sir, I've come to give notice."

She was respectful but firm.

To find the enemy heaving solid shot across his bows without any preliminaries threw the Busy Man into helpless confusion.

He tried a mild joke upon her. It fell feebly away from her majestic dignity.

"Of course I'll not go before Madam comes home," she explained. "I wouldn't leave her in a fix that way — and her sick; but she'll be coming along right soon now, and I'm giving notice so you can get somebody else in soon's she's home and settled."

The Busy Man put down his paper and stared at the disturber of his peace in consternation.

"But you mustn't go that way, Emmeline. Mrs. Randolph wouldn't know what to do — she mustn't be worried — I really don't see — why, what in the deuce is the matter, anyway?"

Even as he spoke a sense of guilt sent the blood to his face and he cast a furtive look at the clock.

"Yes, sir," said Emmeline, following his eyes. "I can't stay where I can't have my evenings."

He recognized a last word when he met one. This was a last word.

"Well, of course, I was a little late this evening. A man dropped in and delayed me, but that was an accident. It doesn't happen often, I ——"

"You've been late every night this week."

"Oh, not every night."

"Yes, sir. I didn't get to church, and I didn't get to my lodge, and I missed a party I was going to and had a new

blue dress for, and I can't stand it. I wouldn't mind missing an evening once in a while — but I can't get along this way anyhow, so I'd better go."

Now here was a Heaven-sent chance to demonstrate his capacity for handling labor crises and employees.

The Busy Man realized his opportunity; but, some way or other, his system did not seem to fit the case. He had never had an office boy just like Emmeline. Office boys did not deliver last words. They did not put their hands on their hips and calmly propose shattering the peace and comfort of a home.

Of course the thing to do was to carry out the program he had so often outlined for his wife — to say: "You may go at once; here is your money," and close the interview with a majestic wave of the hand; but he had a sudden vision of the Little Woman's face when she would hear that Emmeline was going, and his heart sank within him.

The Scotts had had six cooks since Christmas. One stole Mrs. Scott's silk stockings, and one had ten callers in a single evening, and one gave paregoric to the baby.

And the Wilsons — well, Wilson had been obliged to take most of his meals at the club all winter because they couldn't get a servant who could boil water without a recipe.

And Courtney never dared take a friend home to dinner unexpectedly — and then the Little Woman was still so white and weak. She wouldn't be strong for a long time yet, and every little thing would worry her. Why, she cried now at the drop of a hat.

"I don't think you ought to leave this way, Emmeline," he said, with an heroic effort to be calmly judicial. "Mrs. Randolph will come home far from well, and she won't feel equal to training a new maid. I should think you'd have some consideration for her."

Emmeline looked at him without the slightest symptom of relenting. She had this helpless man creature where she wanted him and she realized that this was the time for a

demonstration that would make her pathway smoother in the future.

"I've got nothing against her. She's always treated me well. Many a time I'd 'a' left if she hadn't been so nice; but I'm a working woman, and I've got to think about myself."

The Busy Man quite lost hold upon the curt dismissal and the majestic hand wave and cast about him for a life preserver. The idea common to all men that the blackest of grievances can be settled on a money basis came to his rescue, and he said weakly:

"If your wages aren't satisfactory, Emmeline ——"

A gleam of inspiration lighted the gloomy eyes.

"Well, I'd ought to have thirty dollars anywhere."

"That will be all right. I'll raise your wages to thirty."

"Yes, sir. Thank you, sir. But I've got to have my evenings; you can't get home at seven, and so I'm sorry, but I'll have to go."

He looked at her helplessly. She was so big, so unyielding, so competent, so essential.

A sudden appreciation of the Little Woman's trials and of her surpassing diplomatic skill flooded his brain. After all, women knew how to cope with domestic problems. For a moment he hesitated, ashamed to strike his colors, afraid to flaunt them. Then he surrendered unconditionally.

"I guess I can arrange about the dinner hour, Emmeline. You can count on my being here at seven."

"Yes, sir. That'll be all right. Thank you kindly for the raise, sir."

She swept out of the room like a ship under full sail; but in the kitchen she gave way to subdued chuckles.

"Haven't I always said she was too easy with him?" she said gaily to the tea kettle. "You've sure got to be masterful with the men — and that five a month was just velvet — just silk velvet. I never would 'a' thought of it."

— *Adapted.*

4. THE SOLITARY REAPER

William Wordsworth

In the first stanza Wordsworth asks the reader to "behold" and to "listen." He wants you to see the reaper and to hear her song.

The Singer.

Behold her, single in the field,
Yon solitary Highland Lass!
Reaping and singing by herself;
Stop here, or gently pass!
Alone she cuts and binds the grain,
And sings a melancholy strain;
O listen! for the vale profound
Is overflowing with the sound.

Her Skill.

No nightingale did ever chaunt
More welcome notes to weary bands
Of travelers in some shady haunt,
Among Arabian sands;
A voice so thrilling ne'er was heard,
In spring-time from the cuckoo bird,
Breaking the silence of the seas
Among the farthest Hebrides.

The Theme.

Will no one tell me what she sings? —
Perhaps the plaintive numbers flow
For old, unhappy, far-off things,
And battles long ago:
Or is it some more humble lay,
Familiar matter of to-day?
Some natural sorrow, loss, or pain,
That has been, and may be again?

The Effect.

Whate'er the theme, the maiden sang
As if her work could have no ending;

I saw her singing at her work,
And o'er the sickle bending; —
I listened, motionless, and still;
And, as I mounted up the hill,
The music in my heart I bore,
Long after it was heard no more.

CLASS ACTIVITIES

1. What does each stanza tell about the girl, her work, and her song?
2. Why did it make so little difference what she sang? If one sings a sad song, while at his work, is he necessarily sad? Explain. Tell about some one who is always singing a mournful song.
3. Compare this poem with Longfellow's "The Arrow and the Song." Point out resemblance in meaning.
4. Find pictures which give the impression of joy or pleasure in work. Find Breton's "The Song of the Lark."
5. Read Thomas Carlyle's "The Man Who Sings."

"Give me, oh give me
The man who sings at his work."

6. *Volunteer work.* Make a section in your notebook called: "Pictures showing the joy of work." Get your pictures from advertisements.
7. *Volunteer poem.* Write a short poem about the fun of doing a task well.

5. A SONG FROM THE SUDS

LOUISA MAY ALCOTT

Queen of my tub, I merrily sing,
While the white foam rises high;
And sturdily wash, and rinse, and wring,
And fasten the clothes to dry;
Then out in the free fresh air they swing,
Under the sunny sky.

I wish we could wash from our hearts and souls
The stains of the week away,
And let water and air by their magic make
Ourselves as pure as they;
Then on the earth there would be indeed
A glorious washing-day!

Along the path of a useful life,
Will heart's-ease ever bloom;
The busy mind has no time to think
Of sorrow, or care, or gloom;
And anxious thoughts may be swept away
As we busily wield a broom.

I am glad a task to me is given,
To labor at day by day;
For it brings me health, and strength, and hope,
And I cheerfully learn to say —
"Head you think, Heart you may feel,
But Hand you shall work alway!"

CLASS ACTIVITIES

1. Write out this poem on ruled paper. Pin or paste a second sheet to the right edge of the first. Then read carefully Angela Morgan's and Henry van Dyke's poems on pp. 451, 427. Copy on the second sheet from these two poems lines which seem parallel in meaning to the lines of Miss Alcott's poem opposite them. Be sure that you find similar meaning for each pair of lines.
2. Find a copy of *Little Women*, and see where and how Louisa Alcott introduces "A Song from the Suds."

6. L'ENVOI

RUDYARD KIPLING

When Earth's last picture is painted, and the tubes are twisted and dried,
When the oldest colors have faded, and the youngest critic has died,

We shall rest, and, faith, we shall need it — lie down for an
æon or two,
Till the Master of All Good Workmen shall set us to work
anew!

And those who were good shall be happy: they shall sit in a
golden chair;
They shall splash at a ten-league canvas with brushes of
comet's hair;
They shall find real saints to draw from — Magdalene, Peter,
and Paul;
They shall work for an age at a sitting and never be tired at
all!

And only the Master shall praise us, and only the Master
shall blame;
And no one shall work for money, and no one shall work for
fame;
But each for the joy of the working, and each, in his separate
star,
Shall draw the Thing as he sees It for the God of Things as
They Are!

CLASS-LIBRARY READINGS

THE SATISFACTION OF GOOD WORK

1. "Thomas Jefferson, Statesman," in *Makers of Our History*, 68–79.
2. "Alexander Hamilton, Statesman," *ibid.*, 98–111.
3. "Daniel Webster, Orator," *ibid.*, 159–172.
4. "Robert E. Lee, Soldier," *ibid.*, 216–226.
5. "Abraham Lincoln, Liberator," *ibid.*, 237–253.
6. "Ulysses S. Grant, Soldier," *ibid.*, 291–306.
7. "George Washington, Father of His Country," *ibid.*, 19–36.
8. "The House," in *Stories of Useful Inventions*, 147–167.
9. "Solidarity," E. Kenton, in *The Promise of Country Life*, 241–259.
10. "Next Year," W. A. Wolff, in *Stories of the Day's Work*, 182–202.
11. "The Average Man," J. E. Wing, in *A Vocational Reader*, 37–41.
12. "The Carpenter Who Founded a University," *ibid.*, 110–116.
13. "The Mother," R. L. Stevenson, *ibid.*, 188–190.

GENERAL REVIEW

READING HABITS

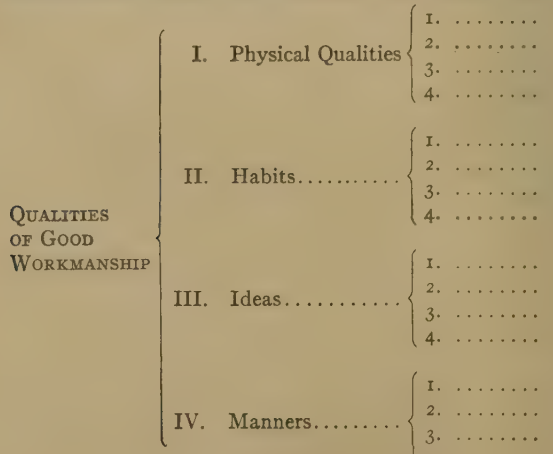
(To be read and discussed in class by teacher and pupils together.)

Reading directions in this unit have added an explanation of another way in which ideas are put together to form a whole (p. 406). Have some one put a "target" plan on the blackboard and explain what it means. Listen closely to see whether the explanation is satisfactory. What is the chief difference between a collection of ideas put together like a chain and one put together like a target? (See pp. 40, 406.)

Other reading directions have stressed again the *finding* activity of the reader. Review the discussion on p. 321. What did you look for and find as directed on p. 390; what on p. 407; on p. 417; on p. 433? If one of these is new to you explain how it differs from those named.

QUESTIONS AND PROBLEMS

1. On p. 394 you were asked to begin an "Applicant's List" and to keep adding to it the names of new qualities of successful workmanship as you came to them. Decide now on three or four main groups of qualities and build a plan on the board including every good entry in all your individual lists.



If your class list contains the names of more than four qualities for the blank lines at the right of the diagram, choose the best four. Do not allow the same quality to appear twice in the list of sixteen.

When the classwork is complete, let a committee make a large poster with colored crayons, and present it to the principal of your school.

2. Write opposite each of the sixteen qualities the name of the selection in this unit which seems to emphasize best the importance of that particular quality.

3. Think of a real or imaginary situation in which the possession of any three of the sixteen qualities would be a very great help toward success. Write a short story in the form of a chain of points, using the three qualities as links in the chain. Show your teacher your links with the subject of each written within it.

4. Classify the ten most important characters named in "Finding and Doing One's Work" by writing the name at the proper place in the schedule below in which you think the chief qualities of success or failure place him. After the numerals 1, 2, 3, 4 use the qualities determined upon by the class in problem 1 above. Place the names of successful characters under the plus signs; names of unsuccessful characters under the minus signs. Do not name any one character more than three times. Are there some characters whose names might appear below the plus signs in some columns and below the minus signs in other columns?

PHYSICAL QUALITIES				PERSONAL HABITS				IDEAS				MANNERS			
1 +	2 +	3 +	4 +	1 +	2 +	3 +	4 +	1 +	2 +	3 +	4 +	1 +	2 +	3 +	4 +
1 −	2 −	3 −	4 −	1 −	2 −	3 −	4 −	1 −	2 −	3 −	4 −	1 −	2 −	3 −	4 −

ROUNDING OUT THE MEANING OF FINDING AND DOING ONE'S WORK

1. This stanza about lifters and leaners was written by Ella Wheeler Wilcox:

WHICH ARE YOU?

The two kinds of people on earth I mean
Are the people who lift and the people who lean.
Wherever you go, you will find the world's masses
Always divided in just these two classes.
And oddly enough, you will find too, I ween,
There is only one lifter to twenty who lean.
In which class are you? Are you easing the load
Of overtaxed lifters who toil down the road?
Or are you a leaner who lets others bear
Your portion of labor and worry and care?

Make a large target with six or eight circles about the bull's-eye: BE A LIFTER. Then choose from the stories in this book six or eight *lifters;* people who did more than their share. Arrange them in their order as good lifters, and write their names in the circles.

Compare results. When differences of opinion arise, debate the points from the floor. Decide by vote what name to use.

2. *Book reports.* Each of you found a book from the Book List on p. 388. Plan a day for book reports in which you tell the class the *one* most valuable contribution to "Finding and Doing One's Work" that you discovered in your book. Be sure that you can tell your point in a few sentences.

3. Read these questions, which are often asked by vocational counsellors. Write out the answers that Abraham Lincoln might have given at twenty-one years of age. Write them out for Richard Russell, for Smith, or choose some one else whom you know very well:

What schooling have you had? In what studies did you make the best records? In what studies did you make the worst records? What studies did you like the best? What the least? Did you study your best? Was your interest largely taken up with other matters? What reading have you done on your own initiative? What are your favorite books? What are your favorite authors? Have you read any history? Economics? Citizenship? How do you spend your spare time? What do you do with a holiday? What interests you most?

What are your ambitions? What would you go to see first at a world's fair? What person in history would you be like if you could choose?

4. *Round table discussion.* Each of you ask some man or woman to tell you how his schooling has helped him succeed. Ask for just one big reason. Report accurately what you are told.

TOPICS FOR COMPOSITIONS

1. When I, like Ali Hafed, missed a chance close at hand.
2. A chance I did not miss.
3. The value of "If at first you don't succeed."
4. My first job for money.
5. When and how I started my bank account.
6. The difference between a "job" and a "golden chance."
7. How to save three minutes before the class bell rings.
8. Something I did without being told.
9. A "lifter" in our town.
10. My ambition; how am I fitting myself for it.

TOPICS FOR DEBATES

1. *Resolved,* That boys of fifteen years are just as careful in personal neatness as girls of the same age.
2. *Resolved,* That every boy should help his mother do housework.

GLOSSARY

a bate′: lessen; reduce
a bom′i na ble: hateful; disgusting
ac ces′si ble: easy to reach
ac qui si′tion (ăk wĭ zi′shŭn): addition
adze (ădz): a kind of axe
æ′on (ē′on): an age; a very long period of time
a e′re al ev o lu′tion: orderly movement in the air
af front′: insult
a kim′bo: with hands on hips
A leu′tian Is′lands (Ă lū′shăn): a chain of islands between Alaska and Siberia
al loy′: baser metal mixed with finer one
am′ble: go at an easy pace
am pu ta′tion: a cutting off
an′nals: histories; records of events made year by year
a non′y mous: author's name unknown or not given
an′thra cite (ăn′thră cīt): hard coal
an thro pol′o gy: a study of man's nature and origin
an ti sep′tic: germ-destroying
a pos′tle (ă pŏs′l): one who supports any great cause
A pos′tle Paul: one of the followers of Jesus
ap pa ra′tus: machinery
ap pa ri′tion (ăp pă rĭsh′ŭn): ghost
ar′chi tect (är′kĭ tĕkt): master-builder
ar′chi tec′ture (är′kĭ tĕk tūr): building
ar′dor: eagerness
ar′go sy: large merchant vessel
asth′ma (ăz′mă): a disease which causes great difficulty in breathing
at′om: smallest particle
auc′tion (awk′shŭn); a public sale to the highest bidder
a vail′a ble: usable
awe (aw): fearful wonder

bag′pipes: a Scottish musical wind instrument consisting of a leathern bag, serving as bellows and fitted with pipes
bar′bar ous: inhuman; uncivilized
bau′ble: child's toy
beam: one of the principal crosswise timbers of a building or ship
bel lig′er ent ly (bē lĭj′er ĕnt lĭ): quarrelsomely
be nef′i cent: helpful; kindly; doing good
bi tu′mi nous: soft coal
blithe (blīth): gay
bo′gy truck: a low, strongly built truck or cart
bom bard′: attack, as with bombs
boo′by: stupid; a stupid person
boor: ill-mannered person
bow′sprit: a large pole or spar running out from the forward end of a ship
bric′à brac: small works of art used as ornaments, as on a mantel
brood′ing sea′son: nesting time, when the young are hatched
brunt: first shock
brusque (bro͞osk): rough; short and sharp
Bud′dhist (Bo͞od′ĭst): a follower of the teacher Buddha
bul′lion (bo͝ol′yŭn): uncoined silver or gold
bul′wark: defense; something built to keep off an enemy
buoy′ant (boi′ănt): light-hearted

bu'reau of en to mol'o gy (bū'rō): government department for the study of insects
bust: carved figure of head, shoulders, and breast
but'tressed: supported

cad: a low, rude, vulgar fellow
cam'e o (kăm ē ō): precious stone or shell on which raised figures are engraved
can'vass: walk through to get orders
cap'i tal: money for carrying on a trade
car'a van: a company or procession of large covered wagons
car'nage: killing; destroying
car'ri er dove: dove used to carry letters
ce're al: grain used for food
cer'e mo ny: stately or impressive form of service
cha grin' (shą grĭn'): shame; dismay
chart: map out
chas'sis (shą'sē): under part of an automobile, consisting of the frame, with the wheels and machinery
chim pan'zee: a large ape
chord (cord): musical strain
churl: ill-bred person
civ'ic good: general good of the people
cler'i cal work (klâr'ĭ kąl): work of a clerk
clique (klēk): a group of persons united for a common cause
cock'ing his hat with pins: pinning into a cocked hat
co in cide': come at the same time
col lo'di on: solution of gun cotton in ether or alcohol
com men'da ble: worthy of praise
com'pass: space
com pla'cent: self-satisfied
con'cen trate (kŏn'sĕn trāt): bring together
con'crete (kŏn'krēt): mixture of lime, sand, and gravel made into a solid material for building purposes
con fi den'tial ly (cŏn fĭ dĕn'shăl lĭ): privately
con fla gra'tion: great fire
con serve': to preserve from destruction
con ster na'tion (kŏn ster nā'shŭn): terror; great fright
con temp'tu ous: scornful
con tract' debts: make debts; run into debt
con vey'ance (cŏn vā'ănce): coach; any kind of wagon or carriage
cool'ie: a laborer from China or other Eastern country
cor'dial: hearty, sincere
count'er mand: to recall an order; to contradict
cou'ri er (kōō'rĭ er): runner; messenger
cours'er: swift horse
crack'ling: crisp rind of roast pork
crag: steep rock
crane: machine for lifting heavy weights
cre den'tials: proofs of the right to be trusted
cred'i tor: one to whom another owes money
cre vasse' (krē văs): deep crack
cringe: crouch from fear of pain
cri'sis: time of danger
crit'ic: judge, especially of art
Cœ'sus (krē'sŭs): a very rich king of ancient times, the richest man of his time
cro'ny: chum; friend
cul'mi nate: end
cul'ture (kŭl tūr): growth in civilization
cul'vert: an arched drain; a small bridge
cum'ber some: burdensome
cu'ri o: anything rare or curious

da'ta (dā'tą): facts
daunt'ed: discouraged
de bouch' (dē bōōsh'): come out; emerge
de bris' (dā brē'): rubbish; waste
deg ra da'tion: disgrace
de i fy: make god-like
delve: dig
dem'o li'tion (dĕm'ō lĭsh'ŭn): destroying; tearing down

de pos'i tor: a person who puts money in a bank
de ride': make fun of
des patch': official message
de tach'ments: groups separated from the main body and sent on special service
dev'as tate: plunder; lay waste; rob
dex'trous: skilful; clever
di ag no'sis: knowing diseases by their symptoms
dil'i gence: hard work
di lute': weaken
dim i nu'tion: lessening
dip lo mat'ic skill: skill in managing affairs
dis'ci pline (dĭs'sĭ plĭn): training
dis sect' (dĭ sĕkt'): take apart
dis til': let fall in drops
div'i dend: a share of profit
doc'trine (dŏk'trĭn): teaching
dole'ful ly: painfully
dol'phin (dŏl'fĭn): a sea animal of the whale family
do mes'ti ca'tion: changing from a wild state to a habit of living or growing under the control of man
do min'ion (dō mĭn'yŭn): control
dow'ered mys te'ri ous ly: gifted strangely
drom'e da ry: Arabian camel
drought (drout): dry season
drum'mer: travelling salesman
dune (dūn): heap of sand piled up by the wind
dy'nas ty: reign of king or queen

ec o nom'ic pow'er: power in managing money
ec'sta sy (ĕk'stá sē): very great joy
E'den: Paradise; the perfect garden in which the Bible story places Adam and Eve; any very delightful place
ed'i ble: eatable
ef fi'cien cy (ĕf fĭsh'ĕn cĭ): ability to get results without loss of time or money
e jac'u la'tion: word said in a jerky fashion and with a loud voice
e man'ci pa tor: one who sets free
en'mi ty: feeling of hate; feeling of an enemy
en sconced': snugly settled; comfortably hidden
ep'och-mak'ing in ven'tion: an invention so important that it causes the beginning of a new period in history
eq'ui page: carriage
es thet'ic de'sire: desire for beauty
es'ti mate: value
ex pe di'tion: haste
ex ter'mi na'tion: complete destruction; putting an end to
ex tinct': no longer existing; killed off
ex ul ta'tion: rejoicing; extreme happiness

fa cil'i tate: make easier
fa cil'i ty: easy way
fam'ine (făm'ĭn): great scarcity of food
Far'a day: Michael Faraday, an English electrician
far'thing: English money equal to one-fourth of a penny
fath'om less: too deep for the bottom to be reached
fa tigue' (fá tig'): weariness
fick'le: changeable
fi del'i ty: faithfulness
for'mi da ble: terrifying; dreadful
fraud: cheat; deception
fren'zy: violent excitement
frig'id: cold; freezing
fru gal'i ty: saving; economy
fu'tile (fū'tĭl): useless; unimportant

gait: manner of walking
gal'ley: a low one-decked ship driven by oars or sails
gar'nered: gathered
ge ol'o gist: one who knows the science of the formation of the earth
gin'ger ly: cautiously; timidly
grap'nel: a small anchor with claws; a tool for grasping and holding
grid'i ron: iron grate for cooking
gross (grōs): twelve dozen
guin'ea: a gold coin once used in England, worth a little less than $5.00

hal'i but: a large sea fish
ha rangue' (ha rang'): loud speech to a gathering of people
har'ass: torment
her'i tage: inheritance; birthright
hi'ber nate: to pass the winter in sleep
Ho'mer: a great Greek poet who wrote the story of the Trojan War and the story of Ulysses
hos'tel: an inn or hotel
hus'band: manage carefully
hy drau'lic: worked or driven by water
hy po der'mic: inserted under the skin

ig no min'i ous: shameful
ig no ra'mus: dunce
im pact: striking together of two things
im pe'ded: hindered
im pe'ri al: royal
im'pe tus: force
im prac'ti ca ble: not able to be done easily; so hard to do as not to be worth doing
in ci'sive ness: cutting quality
in cre du'li ty: unbelief
in duce'ment: motive; encouragement; argument; persuasion
in dul'gent: kind
In'dus: a river in Asia
in ev'i ta ble: certain to happen; unavoidable
in fer'no: a pit filled with flames; hell
in'fi nite: endless
in fringe': break
in gen u'i ty: inventive skill
in jec'tor: a device for feeding water into a steam boiler
in spi ra'tion: divine influence
in ter change'a ble: that may be exchanged one for another
in ter mis'sion (ĭn ter mĭsh'ŭn): short pause
in'tri cate: difficult to understand
in tu i'tion: insight; knowledge gained without teaching
i rid'i um: a rare silver-white metal somewhat like platinum, but harder

Je ho'vah: a name of God
jeop'ard ize (jĕp'erd īz): endanger; threaten the loss of
jiu'jit su (jōō'jĭt sōō): a system of wrestling and boxing used by the Japanese
jo'vi al: jolly
ju di'cial (jū dĭ'shăl): like a judge

keel: lowest steel plate of a vessel extending from stem to stern; a flat-bottomed ship
keel'son: timber laid on the middle of the floor timbers over the keel of the vessel to strengthen it.
Khe dive' (Kĕ dēv'): governor or ruler of Egypt
kiln (kĭl): oven for baking brick
knee: piece of timber with an angle like the knee when bent

lair: bed or den of wild beast
lar'ce ny: theft
lar'va: the early form of an insect
laud'a ble: worthy of praise
league (lēg): three miles
lei'sure (lē'zhūr): spare time, time not given to work
le vee' (lĕ vē): morning reception
le'ver (lē'ver): a rigid bar used to exert pressure or lift a weight
lib'er al: generous
Lib'er ty bond: U. S. Government bond issued during the World War as security for the repayment of money lent to the government
list'less: without spirit; uninterested
lit'er al ly: really; truly
liv'id: black and blue
loan "shark": one who loans money at very high rates of interest
lu'cent: clear; shining
lug'gage: baggage; trunks or packages of a traveller
lus'cious (lŭsh'ŭs): delightful to the taste

Mag'da lene (Măg'dà lĕn): a penitent woman whose sins were forgiven by Christ

mag net'ic cur'rent: current of electricity or magnetism.
mag'net ism: force in nature which is seen in a magnet; power to attract
maim: cripple
main'te nance: cost of keeping in repair
make'shift of sub sist'ence: chance way of making a living
mam'mals: one of the highest class of animals of which the mothers nurse their young
mam'moth: immense; originally the name of a huge animal
man'ga nese: a hard, brittle metal
Man hat'tan: the island on which New York City is built
man'u al: a small book
man'u script: book or paper written by hand or typewritten
mart: market; market place
mar'tyr (mär'ter): one who dies or endures great suffering for his faith or opinions
mar'vel: wonder
ma'son ry: work of stone-cutters and builders
mas'sa cre (măs'sȧ ker): killing many people violently
ma ter'nal: motherly; of the mother
Mat'ter horn: the highest mountain of the Alps
mea'gre (mē'ger): scanty
meer'schaum (mēr'shŏm): a clay-like substance from which the bowls of expensive pipes are made
men'u (mĕn'ū): a bill of fare; list of prepared foods for a meal
Mer'cu ry: the winged messenger of the gods
me rid'i an: midday; the highest point of the sun
me'te o rite: stone or metallic body which has fallen on the earth
me trop'o lis: a principal city, as New York City
mi cro scop'ic: very small
Mi'das: a story-book Greek king whose touch would turn any object to gold
min'i a ture (mĭn'ĭ ȧ tūr): small copy
min'is ter to his wants: supply his wants
min'ster: church
mi nute' (mī nūt'): very small
mol'e cule (mŏl'ē kūl): the smallest quantity of any substance which can exist separately
mol'ten: melted
mo nop'o ly: control of an industry
mo not'o nous: tiresome because of sameness or repetition
mor'tar: a strong bowl in which grains are pounded with a pes'tle (pĕs'l)
mort'gage (mor'gāge): security given for money lent
mo'tive: moving; causing motion
mo'tor: a machine or engine which causes motion
mu ni'tions: military supplies
mu'ti la ted: crippled
myr'i ad (mĭr'ĭ ȧd): an immense number

nec ta're ous: very sweet
ne go'ti a'tion (nē gō'shĭ ā''shŭn): bargaining; business arrangements; talk about business
neth'er: lower
non'cha lant (nŏn'shȧ lȧnt): careless
note of hand: a signed paper promising payment
nu'cle us: central part

ob nox'ious (ŏb nŏk'shŭs): hateful; offensive; objectionable
ob'sta cle: hindrance; difficulty
ob'vi ous: plainly understood; perfectly clear
oc'to pus: eight-armed cuttlefish; hence, any power with many branches reaching out to do harm
of fi'cious (ŏ fĭsh'ŭs): too bold; meddlesome
op pres'sion: crushing power of a ruler
op'tion (ŏp'shŭn): right to buy or sell at a given time
or dain': to set apart for some special work
or de'al: severe trial or test
O ri en'tal: eastern; of China and Japan
or ni thol'o gist: one who studies birds
out strip': leave behind

Pal'es tine: the Holy Land, a country at the eastern end of the Mediterranean Sea
pan o ra'ma (păn ō rä'mȧ): picture, view in all directions
par' al lel'o gram: a four-sided figure having opposite sides parallel
par'a site: a plant or animal living on or in the body of another at whose expense it obtains its food or shelter
parch'ment: skin of a sheep or goat prepared for writing on
par e gor'ic: soothing medicine, harmful to babies because it contains opium
pawn'shop: a shop where money is lent on articles left
pe cu'liar (pē kū'lyär): own; special
pe cu'ni a ry gain: profit in the form of money
per cep'ti bly: noticeably
per func'to ry: without interest
per plex'i ty: confusion
Per'sians (per'zhănz): people of Persia, a country in western Asia
pes'ti lence: a wide-spread disease, generally causing death
pes'tle (pes'l): pounder
Pe'ter and Paul: followers of Christ
pew'ter (pū'ter): a metal made of tin and lead; a cheap metal
Phar'i see (Făr'ĭ sē): a self-righteous person
phi lan'thro pist (fĭ lăn'thrō pĭst), one who loves and tries to help mankind
pic a roon': pirate
pi o neer': a settler in a new country
pi'ping ac'cents: shrill way of speaking
pla'cate: to quiet; to make peaceful
pla'za (plä'zȧ): open square or market place
pli'a ble: easily bent; flexible
por'poise (por'pŭs): a large sea creature of the whale family
post'ing of led'ger: bookkeeping
pound: an English coin or paper money worth a little less than $5.00
pre lim'i na ry: introductory; first, before the main event
pre ten'tious (prē tĕn'shŭs): showy
prig: conceited fellow
pri'mal: first; early
pri'ma ry: first; chief
pri me'val: belonging to very early times; original
proc'ess: series of steps; method of work
pro cras'ti na'tion: putting off from day to day
pro cure': get; obtain
prom'is so ry note: a paper which binds the person signing it to pay a certain sum of money to a person named, and at a fixed time
prow'ess: courage; daring
pru'dence: carefulness
pu'ny: weak

ra'di um: a rare metal obtained from pitchblende
rail'road share: investment in railroad property
ran'dom: chance
Raph'a el (Răf'ā ĕl): a picture by Raphael, an Italian painter
rav'en ing: hungry
re buffed': snubbed
re coil': springing back
reel: stagger; grow dizzy
rem i nis'cence: thinking about the past; memory
rep'ri mand: severe rebuke
req'ui site (rĕk'wĭ zĭt); needful; necessary
re serve' funds: funds kept back for future use or for an emergency
res'er voir (rĕz'er vwär): a place where water is stored
res'o nant (rĕz'ō nănt): ringing
re splen'dent: gleaming; bright; brilliant
ret ro gres'sion: going backward from a higher to a lower state
rev'er end look'ing: worthy of respect
rev o lu'tion ize: change entirely; overturn
re vul'sion: change to the opposite
ro'dent: gnawing animals, like the rat, mouse, squirrel, rabbit, etc.

sa'bre (sā'ber): a sword slightly curved toward the point
sage: wise man

sap'ping: draining
sa van'na: treeless plain
sa'vo ry vi'ands: delicious-smelling foods
scav'en ger: an animal which devours waste or filth or anything harmful to health
sce na'ri o (shā nä'rĭ ō): outline of a plot in a moving-picture play, showing scenes and the entrances and exits
scroll (skrōl): a roll of paper containing writing
se date': quiet; sober
sed'i ment: soil or other matter which has settled, as in water
self-com mu'ni ca tive: talking to one's self
se ren'i ty: calm
sha green' (shà green'): rough skin of sharks prepared as leather
sharp'er: cheat
shek'el: an ancient Jewish coin worth a little over 50 cents
shim'mer: gleaming
short'horns: a breed of large, heavy beef cattle
sig'ni fy: mean
sin'ew (sĭn'ū): a cord fastening a muscle to a bone
sin'ew y: strong
slake: put out
sloth: idleness; laziness
slug'gard: lazy fellow; idler
snaf'fle: a bridle bit having no curb
so ci ol'o gy (sō shĭ ŏl'ō gĭ): study of human life; social science
so lid'i fy: to make solid
spe'cie (spē'shĭ): coin
spire: a slender tower
spume: foam
stalks the boards: is played on the stage
sta tis'ti cal ac count': facts and figures collected and arranged for general use
stem: stop; dam
stocks and bonds: legal documents or papers indicating ownership in a business organization or corporation; financial securities
sto'ic: one indifferent to pleasure or pain
stool-pig'eon (pĭj'ŭn): a pigeon used to lead other pigeons into a trap
storm: attack
Stra di va'ri us: violin made by Stradivari, whose instruments are famous for beauty of tone and design
stress: emphasize; effort; strain
strip'ling, reed'y: slender youth
stud'ding: timber for posts to support floors
stu'por: stupidity; dulness
sub or di na'tion: putting in place of less importance
sub sist': live
sub'sti tute: something put in the place of another thing
sub'tle (sŭt'l): delicate; fine
su'per: a short form for "superintendent," used by workmen
su perb'er: grander
sur vey' (ser vā'): examine carefully; measure land with special instruments for the purpose
sym'bol ize: stand for something else; represent
syn thet'ic chem'is try (kĕm'ĭs trĭ): chemistry devoted to making new products

tact: ability to say and do the right thing at the right time
tal'ly-ho: a coach with four horses driven by one person
tank'ard: large drinking-cup with a lid
tar'dy wheel: slow-moving steering-wheel
ten'ant: dweller; inhabitant
ter'mi ni (ter mĭ nī): plural of terminus
ter'mi nus: end of a railway or a road
tex'ture (tĕks'tūr): weave, quality of surface
theme (thēm): thought; idea
thrift stamp: a stamp sold by the government during the World War to encourage small savings
throe (thrō): great pain
tick'er: telegraphic instrument which receives and prints news of the stock market, used in brokers' offices

Ti'gris and Eu phra'tes (ū frā'tēz): rivers in southwestern Asia
time'keep er: one who keeps a record of the time of workmen
tin'type: picture taken on thin iron plate
ti'tan: giant
Ti'tian (Tĭ'shăn): picture by Titian, a Venetian painter
tor'et: ring on a horse's harness
tor'pid: sluggish
trac'tor: gasolene engine used for drawing farm machinery
trag'e dy (trăj'ĕ dĭ): disaster; sad event
Tro'jan: of Troy, an ancient city in Asia Minor, famous as the scene of the Trojan War
truce: peace for a short time
tube: a closed underground tunnel in which a railway is laid
tu i'tion (tū ĭsh'ŭn): teaching
Turn'er: picture by English painter of this name
twinge (twĭnj): a sharp, short, sudden pain
Tyre (tīr): an ancient city of Phœnicia, on the east coast of the Mediterranean Sea
Tyr'i an (Tĭr'ĭ ăn): from the ancient city of Tyre

ul'ti mate: final; last
u nan'i mous ly: by the agreement of all; with one consent
un as sail'a ble: not to be argued with nor attacked
un'du lat ing: wavelike movements
u nique' (ū nēk'): unusual; unlike any other; the only one of its kind
un ruf'fled (ŭn rŭf fld): calm; undisturbed
un tech'ni cal: simple and easy to understand
un time'ly: too soon
u'ti lize: make use of

va'grant: wandering
van'quish: overcome; conquer
ven'om: spite
ver bose': wordy; using too many words
ver'dict: decision
ver'min: harmful and disgusting animal or insect
vex'ing: disturbing
vi bra'tion: quivering
vict'ual (vĭt'l): food; any article of food
vir'gin soil: untouched by man; uncultivated
vi'rile (vī'rĭl or vĭr'ĭl): manly; strong
vi'sion a ry (vĭzh'ŭn a rĭ): dreamer
vo ca'tion al psy chol'o gy (sī kŏl'ō gĭ): a study of personal qualities in relation to fitness for different kinds of work
vol'a tile prod'ucts: products which easily evaporate or pass into the air

wa'ning: growing less
whisk: writing done as with a straw from a broom

zeal (zēl): great earnestness

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